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GILMAN'S RURAL WORLD.

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OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

Sixty-Seventh Year.

ST. LOUIS, MO., FEBRUARY 19, 1914.

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IN THE POULTRY YARD

WINTER EGGS.

There is an annual grouch about the scarcity of eggs in winter. Neighbor A gets no eggs after the first cold snap, and proceeds to change his stock for the kind Neighbor B, who sells a crate of eggs each week, keeps! "We'll cross 'em. Mixed chickens always lay better!" we next hear, but the eggs are not forthcoming.

Make the Hens Comfortable.

It is possible to produce winter eggs with any breed of hens if conditions are right. Now, I do not wish to be misunderstood. People somehow expect to hear that some elaborate plan is essential to success. Fowls are not particular so long as they are comfortable. I once saw a little, miserable-looking old shack made from store boxes and canvas, which sheltered a dozen hens that were furnishing a family of campers with fresh eggs for breakfast every morning.

No draughts and plenty of fresh air, five feet of space for each hen, half of it to be wholly separate from the perches, a box filled with earth and placed in the sunnies' place for dusting, dry, crisp material for them to scratch in, and you have ideal conditions for your hens whether it be a big, modern building or a temporary shelter.

For winter layers the pullets should be hatched early enough to commence laying in October, when they should be confined and rightly fed for egg production. This sort of treatment will cause pullets to begin laying at a much younger period than otherwise, it will also retard their growth. The business of producing winter eggs is, we might say, an industry of its own, and has little, if any, connection with raising big, vigorous stock. A hen that has been crowded to the limit for eggs in October until March has no place in the breeding pen.

Ration for Layers.

"What to feed the layers and why confine them at all times?"

Replying to the last question first, your hens must have a balanced ration, and if permitted to run at large on the average farm they eat too much of one thing, usually corn, and not enough of something else. To develop that bunch of tiny yolks into eggs, the hen must be supplied with protein with which to make the white. It is a mistaken idea that, somehow, by hook or crook, the hen will turn out an egg for every tiny, yellow globule.

There is no best grain ration. Many formulas are being used successfully. Corn, wheat, oats and buckwheat are considered an excellent foundation. Personally, from a long experience, I prefer oats to any one other grain. The best all-around ration, and at the same time the easiest procured, is that used by the Indiana Experiment station. It consists of two parts corn, two parts wheat, one part oats, to be fed in deep litter. There is small danger of them consuming too much so long as they are kept busy enough to be active and healthy. A fat hen is a profitable hen, provided it is firm, muscular fat. An over-fed, flabby, lazy biddy is subject to every ill that chickens are heir to.

Dry Mash.

The dry mash to be fed in a hopper, consists of five pounds bran, five pounds shorts and three and one-half pounds meat scraps. The meat scraps may be substituted by 62 pounds skim milk. In actual practice we find milk valuable aside from furnishing protein, and use it liberally. At the experiment station the hens are required to eat about one-half as much mash as grain.

The hens must, of course, have grit, crushed shells and water. Succulent food is indispensable, and may be given in the form of fresh vegetables. Silage is growing in favor and is all right.

Cost of Production.

The result of this experiment showed that the hens getting the protein in their feed laid 125 eggs a year. The



hens having the grain only laid 24 eggs in a year. After paying for the skim milk and beef scrap, the hens having the balanced food produced eggs at 8 to 9 cents a dozen, while the purely grain-fed hens charged 35 cents a dozen for all eggs laid.—Minnie G. Stearns.

BREEDING FOR EGGS.

In concluding a valuable paper on "Breeding for Egg Production," Dr. Pearl of the Maine experiment station says that in the system of breeding advocated by him two principles must be observed. First, the general principle of "the progeny test in breeding for performance," which is the principle which has given the plant breeder such notable triumphs.

Second, the recognition of the significance of the male for breeding for egg production. He would select all breeding birds first on the basis of constitutional vigor and vitality. Use as breeders such females as had been shown by trapnest records to be large producers, and of males only such as are known to be sons of high-producing hens.

LICE AMONG THE POULTRY.

Cold weather causes the poultry to keep close to each other to keep warm, and, accordingly, it presents the very best opportunity for the propagation and exchange of lice, mites, etc. In summer the fowls are usually ranging or separated from one another, and they have then more chances to dust and free themselves of parasites. But in winter their unwelcome hosts are harder to get rid of, for keeping warm, eating and drinking and getting into health for spring egg-laying, take most of the fowls' time and energy without having parasitic affliction and torture thrown in. Then it becomes the owner's duty to help in the riddance of the pests, for lice and mite can very soon put a flock "on the shelf."

When a flock becomes overburdened with parasites the extermination of the pest is bound to take work, but it can be done and should be done at any cost. Of course, the roosts and roosting quarters are recruiting places for these pests and such places must be examined and cleaned. The droppings should be carefully removed and all trash and litter burned. The nesting material is to be burned so the nest boxes can be sprayed and washed. While the roosting quarters are receiving attention the flock should be placed in a close high pen where they can be taken out one at a time for examination and afterwards put back into the hen house when it is ready. After the fowls and house have been freed of the pest the yards must be cleaned up thoroughly.

The washes and powders used for this work need not cost much if the following is used: Mix three parts of gasoline and one part of crude carbolic acid, and while stirring add gradually plaster paris until the gasoline and acid mixture is completely taken up to a dry consistency. It must be carefully stirred and mixed so there will be no unevenness in the resulting mixture. It should be a powder of a pinkish-brown color when prepared, and of course it will smell strongly of both gasoline and carbolic acid. The above is to be used when the time comes to examine each fowl and kill the lice. Work the powder well among the feathers and within a week afterwards repeat the process to get the young lice that were nits

when the first operation was going on.

Now, for the roots, nest boxes and hen house, mix up more gasoline and acid to use as a spray. After this treatment it will be well to wash the quarters with strong soapsuds, and when thoroughly aired whitewash can be applied if desired. Then you are ready to put in new nests, etc.

The gasoline-acid-plaster-paris combination is recommended by the Maine experiment station, and it can be seen that all the ingredients are good and inexpensive; besides, the gasoline acid spray will effectively kill lice and nits. In the lice-eliminating process, don't depend upon just one treatment and then allow some time to elapse before another is given, but make frequent examinations. It is the only way to repair or forestall parasitic damage, and surely means more in profits.—B. H. W.

WET MASH FOR CHICKS.

A good wet mash for chicks grown for broilers may be mixed as follows: 100 pounds of cornmeal, 50 pounds of bran, 50 pounds of wheat middlings, 50 pounds of ground oats (with hulls sifted out), or rolled oats, and 50 pounds of high grade beef scrap.

A good dry mash may be made up of 50 pounds of bran, 50 pounds of middlings, 50 pounds of rolled oats, 50 pounds of cornmeal, 50 pounds of alfalfa meal, and 100 pounds of beef scrap. One or two feeds a day of cracked corn and one or two feeds of the wet mash should be sufficient. The dry mash, when used, should be left before the chicks all the time.

In using wet mashes, avoid all sloppiness. They should be moistened to a crumbly consistency, and only enough should be fed so that it will be cleaned up in a few minutes. If milk is convenient to give them for drinking, let it sour each day before giving it to them.

THE BREEDING FOWLS.

The fowls for breeding should be large, thrifty birds, showing their vigorous condition. Their record should be clear of any serious disease, because many an apparently cured bird will show the same disease in its offspring. Just the same as in the human family, some diseases are thought to be hereditary, which are really not so. What is really hereditary is a physical weakness, which makes them predisposed toward the disease, or makes them likely to contract the same disease as the parents. Therefore, in selecting the breeding pen, choose, if possible, birds that have been free from disease.

FATTENING RATION.

A ration recommended by one of the experiment stations for fattening fowls is composed of equal parts of cornmeal, middlings and ground oats, to which is added 15 per cent by weight of beef scrap. This mixture is wet up with sour skim milk and fed in V-shaped troughs. The chickens should be fed with all they will eat in 10 minutes, after which the feed troughs should be removed and the pen darkened until time to feed again. Feed three times a day.

Get ready for frost bites by mixing together five parts of vaseline, two parts of glycerine, and one part of spirits of turpentine. Melt the vaseline, remove from the fire, and add the glycerine and turpentine. If combs or wattles are frozen, thaw out gradually with cold water or snow on the frozen parts, keeping the bird in a cold room. Then apply the salve morning and evening. Greasing the comb and wattles will sometimes prevent freezing.

CARE OF THE DUCKS.

Plenty of Drinking Water is an Essential.

Water in abundance for drinking purposes is a necessity, and amateurs sometimes make a great mistake in failing to recognize that fact, says the Farm and Fireside. Ducks fed on soft mash must have a chance to dip their bills in water to wash out their nostrils or they will be in danger of smothering to death, as the mash gets into their nostrils. Indeed, they sometimes get their nostrils filled with mud and rush to the water dish.

It will be seen that the dish in which water is given must be deep enough so that the ducks may bury their bills in the water. Self feeding fountains are best for young ducklings, as they prevent the youngsters getting their feathers wet, something which must be carefully avoided.

CARE IN MOLTING.

During the molt of the old birds they should have the best of care and some changes should be made in their feed to aid in producing the new coat of feathers. After they begin to molt, it is a good plan to reduce their ration of wheat, oats and the like, and feed largely corn, all they will eat. A small amount of linseed oil meal added to their mash will be very beneficial, and a few sunflower seeds will prove equally good.

FEED REGULARLY.

Fattening stock should be fed regularly, but no more at a time than will be eaten up clean. It should be remembered that, when an animal becomes hungry and is allowed to feed for food, the process of fattening is retarded.

EXERCISE AND SUNLIGHT.

In the arrangement of the poultry house there must be plenty of room for scratching and other exercise. Sunlight is the great germ-killer, so a southern exposure is best. Have plenty of sunlight in the chicken house, and you will get more eggs.

Perches should be about 12 inches above the dropping board. They should be all on the same level, because if the top one is higher than the others all birds will try for the high perch.

By all means build the roost platforms a few inches below the roosts at the back of the poultry house and build them high enough from the floor so that the fowls can work under them. If they are cleaned every few days it will do much to keep the hen house in good condition.

Do not try to force the egg yield with stimulants. They are liable to excite and inflame the linings of the digestive organs. Good housing and good feed will produce eggs in a flock of an age to lay. Hens will lay in the spring, even at the age of five years, but winter eggs in paying numbers can be expected only from hens not over two years old.

Where it is intended to market the eggs, male birds should not be allowed to run with the hens. They should be penned up by themselves. Infertile eggs always make better market eggs and in addition they will keep much longer than fertile eggs. There is no need for keeping the male birds with the hens under such circumstances and it only means money out of your pocket to do so.

If the late-hatched pullets do not start laying as early as they ought to feed at noon a grain mash mixed with an equal amount of buttermilk. That means to 100 pounds of dry mash mixture add 100 pounds of buttermilk. Feed about seven pounds of this wet mash to each flock of 100. This mash acts as a stimulant and forces them along a little faster. It is, of course, fed in addition to the regular ration of dry mash in hoppers and grain in the litter.

We and I that we good From old the skin it not brand vertical good All feeding find the heavier direct I ne anywhere growth and the The nation calf, a send for to grow. Cattle years the skin-m in two we can In o the gen Wilber Illinois in up alia Fraser, cation dred co at the identical portunit apart in "It is horns o and the ference morals. of note earning is how The has bee exact re ty keep every co each co has bee Durin produce taining cow No but 11,4 pounds annual p 830 pou fat; and pounds. These in the s kinds of all they 1 ate 1, but I milk and fat. Or, No. 1 pr No. 3. 259 vs. 1 "Feed times as to No. 3 feed made No. 1, b to No. 3 138 pounds quantity into 250 nearly the othe "This big h keep.

CREAM of the DAIRY NEWS

SKIM-MILK CALVES.

By C. D. Lyon.

We have three of these animals now and I wish that the man who thinks that whole milk is necessary to grow a good calf could see them.

From the time they were five days old they have been fed exclusively on skim milk and commercial calf meal, it not being necessary to name the brand here, as the makers are not advertising with us; and besides we think one brand of this meal is as good as another.

All these meals have directions for feeding with each package, but we find that we can use them at a little heavier rate than that given by these directions.

I never saw a better lot of calves anywhere. They have made rapid growth from the start, have fine coats and the feeding cost is small.

The Missouri State Experiment Station has a bulletin on the skim-milk calf, and we advise our readers to send for it, that they may learn how to grow calves cheaply.

Cattle of all kinds will sell high for years to come, and on most farms the skim-milk calf will be the sale animal in two or three years from now, as we cannot afford to sell butter fat.

RECORDS OF TWO COWS FOR THREE YEARS.

In one of a series of articles on the general topic of the need of better cows in our dairy herds, Prof. Wilber J. Fraser of the University of Illinois gives interesting information in regard to the performance of two University cows. "They were brought up alike on the farm," says Prof. Fraser, "and obtained their early education in the same herd of one hundred cows in the Elgin region. Here at the University, with the same identical surroundings and equal opportunities, they have drifted far apart in character.

It is not a difference of hide or horns or temper; not that one is wild and the other a pet; it is not a difference of beauty or intelligence or morals. The only difference worthy of note is a difference in work, in earning money for the owner. Here is how they differ:

The Two Records for Three Years.

"The milk of each of these cows has been weighed and tested and an exact record of its amount and quality kept for the whole period, and every pound of the feed consumed by each cow both summer and winter has been set down in definite terms.

"During the three years cow No. 1

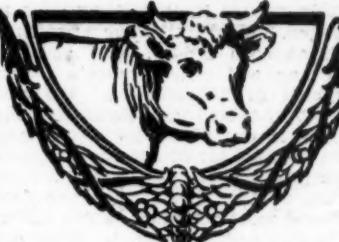
produced 34,171 pounds of milk containing 1,214 pounds of butter fat, and cow No. 3 in the same time yielded but 11,491 pounds of milk with 414 pounds of butter fat. This makes the annual production of the best cow 11,830 pounds milk and 404 2-3 pounds fat; and of the poorest cow, 3,830 pounds milk and 138 pounds butter fat.

"These cows were both cared for in the same way and given the same kinds of feed and encouraged to eat all they could make use of. Cow No. 1 ate 1.56 times as much as cow No. 3, but produced 3.97 times as much milk and 2.93 times as much butter fat. Or, reduced to a like feed basis, No. 1 produced 1.88 times as much as No. 3.

259 vs. 138 Lb. Fat on the Same Feed.

"Feed fed to No. 1 produced 1.88 times as much butter fat as when fed to No. 3; that is, equal amounts of feed made 188 pounds fat when fed to No. 1, but only 100 pounds when fed to No. 3. Each year No. 3 got only 138 pounds butter fat from the same quantity of food that No. 1 changed into 250 pounds fat. The one cow is nearly twice as good a producer as the other on exactly the same feed.

"This sounds significant. It gives a big hint as to the kind of cows to keep. But it represents only the part-



"BABY BEEVES" MAKE ECONOMIC GAINS.

Animal Husbandry Section Iowa Experiment Station Results.

That gains should be made, with 53c corn and cob meal, at a cost not to exceed \$6.50 for a hundred pounds in any case, is certainly gratifying to the man who is feeding calves. Comparing this cost of gain with that of two-year-olds, which under the same conditions would come up around 9 and 10 and even 11 cents, we can readily see why it is that the calves are so popular for feeding when men produce their own cattle. Heretofore, the wide margin on two-year-olds and older steers has enabled us to feed old steers even though the cost of gain was greater than the actual selling price of the cattle; nowadays, however, due to the scarcity of grown cattle the margins are becoming smaller; furthermore, men cannot always depend upon getting such cattle for their feed lots.

Some of our co-operative work with the Walnut Ridge Stock Farm at Whiting, Iowa, has quite clearly shown that where a man produces his own calves he cannot afford to carry them over the second summer as "stockers" to feed them out before the winter. Under conditions existing at the time this test was carried on a couple of years ago, the cost of gains on the "babies" was \$481 a hundred less than on the similarly bred yearlings held over; the net finishing profit per head on the "babies" was \$20.13 and with the yearlings \$14.04.

The Animal Husbandry Section is at the present time continuing this co-operative work; within the next year or two we hope to have complete figures concerning the cost of keeping a cow in the Corn Belt for a year, together with the actual cost of calves not only up to the weaning time but when finished for market. These figures, gathered under practical farm conditions, should be extremely valuable in giving the Middle West Corn Belt farmer an adequate idea as to the possibility of baby beef production under existing commercial conditions.

THE PET COW.

Some of the Jerseys seem almost human in their gentleness and affection. I had one who, on account of her color, we called Fawnie. She was a wonderful cream producer. To test the richness of her milk at one time I churned 15 ounces of butter from a gallon. She was as gentle, affectionate and chummy as a child. I never allowed a cross word to be spoken to her. Sometimes I would come into the pasture and she would come up and lick me as she would a calf. That was the best token of her affection she could give. Sometimes she would get into the corn. Instead of scolding her I would pick a few ears and feed her, and when I thought she had enough would lead her to her stable. There is an immense waste in cruelty to animals. A cow will not readily yield her milk to a scold. Treat her kindly and she rewards you richly.—C. S. Harrison.

LUMPY MILK.

Lumpy milk is frequently due to infection with germs which gain entrance either through the milk ducts in the teats or are carried to the udder in the circulation from other portions of the body. Excessive feeding with large grain rations seems to have a part in causing the trouble, in some cases. In the absence of competent local veterinary help, give a moderately light laxative diet, with a reasonable amount of exercise. Reduce the grain feed temporarily at least and give the udder long continued hand rubbing and gentle massage. A mild physic may be very helpful. The dose may be from one

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half to one pound of epsom salts, dissolved in three pints of water and given as a drench, the exact dose depending upon the size and condition of the cow.—H. M. Reynolds, Veterinarian, University Farm, St. Paul.

AN EASY TEST FOR DIRTY MILK.

It needs no argument to prove that milk contaminated with stable filth is no more fit for food than other foods exposed under the same objectionable conditions. Dirty milk is not only objectionable because of any visible dirt but because of the invisible bacteria which accompany it and threaten the health of the consumer, especially infants. It is claimed by one who has made investigations, that 5,000,000 babies in the civilized world die every year and that about 4,000,000 of them could be saved by the use of clean milk.

Dirty milk that has been carefully strained through a layer of absorbent cotton may not show sediment on the bottom of the bottle, but that is not a final test for its quality. Most of the bacteria were washed through the filter and these bacteria, finding the milk favorable to growth, increased greatly in numbers.

The following test will indicate the presence of stable filth in both the visible and invisible states:

1. Cleanse a test tube or small bottle with boiling water.
2. Cool to the temperature of the hand by holding it by the bottom in an inverted position.
3. Fill half full of the milk in question and maintain a temperature of from 90 degrees to 100 degrees for about twenty-four hours.
4. Look for gas holes in the curd which, if numerous, indicates dirty milk, and if present in such numbers as to cause a floating curd, indicates very dirty milk.

The egg incubator or the thermos bottle may be used in securing the proper temperature.—W. R. Wright, Asst. Bacteriologist.

Milk should be removed from the stable as quickly as possible to milk room. This room should be light and airy and entirely separate from the stable. If the gravity method of separating the cream is used, the milk should be cooled quickly to 40 to 50 degrees Fahr. There are three different forms of the gravity system: The "shallow pan or crock," the "deep setting," and the "water dilution." The last mentioned is not worthy of discussion, as it is wasteful and non-efficient. Of the other two methods, the "deep setting" is the more satisfactory. It consists of a deep, narrow can, sometimes called a shotgun can, which is set in cold water. When the cream rises it can be removed with a ladle or dipper. The cream rises in it more quickly and more thoroughly than in the "shallow pan" system, which consists of putting milk into pans or crocks.

OF INTEREST TO BEEF PRODUCERS.

In reviewing some of the lessons of 1913 at the annual meeting of the Iowa beef producers' association, President Charles Escher made the following statement:

In producing the champion car lots of cattle shown by my firm, Escher & Ryan, at the 1913 International, first in importance was emphasized the value of good blood. Without the proper quality in his calves, secured by good ancestry, the most skillful feeder fails to produce finished cattle of show or good market quality.

Next was mentioned good feeding from start to finish. The champion steers and their mates were fed grain in creeps while following their mothers on pasture. From weaning time until marketed the cattle were well fed. Silage, clover and oats hay, corn, oats and barley, linseed oil meal, cottonseed meal and molasses all were used in giving variety and promoting appetite.

"I was slow in getting silos," said Mr. Escher. "I lost a lot of money by not having silos long ago. However, I have four now, and will have four more by filling time."

Baby Beef Steer in Demand.

Another point proved by the year's trading was the advantage of feeding younger steers. Through the later months of the year the steers started on feed as calves made nearly half a pound of gain a day more than their brothers a year older. The gains were also made more cheaply. The younger cattle won the championship and sold better than the two-year-olds.

"The baby beef steer is the butcher's ideal," said Mr. Escher. "He makes bigger and more economical gains; may be carried past a bad spot on the market, if necessary, without loss; costs less to produce, sells better, and yields more profit. That is why the other steer is going out of fashion with the man who is producing beef."

Speaking from the topic, "The Trend of the Times in Beef Production," Prof. W. H. Pew, head of the animal husbandry department of the Iowa state college, pointed out that the year's markets, recent show yard records, experimental records, and the action of many of the most progressive cattlemen, all point toward the production of so-called baby beef, or the fat 900 to 1150-pound yearling rather than the heavy two or three-year-old steer. Especially is this the case where the feeder cattle must be produced on Iowa land.

The general beef cattle shortage and consequent demand and high prices, feeder cattle scarcity and high prices of feeds and cattle, all indicate the growing and feeding out of calves rather than feeding of older steers on many Iowa farms.

Corn silage, alfalfa and clover, the better use of pastures, the proper use of concentrates, and above all, better breeding stock, all help cut down the cost of producing beef. The trend of the times seems to be the greater and more efficient use of these things on the average cattle producing farm.

Present Status of Industry.

The present status of the beef industry, according to Dean C. F. Curtiss, is that of any industry in which demand for the product exceeds the supply. Since 1907 the population of the United States has increased 9.5 per cent. During the same time the number of beef cattle has decreased 30 per cent. The world shortage of beef is nearly as acute. Meat importations under free trade conditions are not large enough to be seriously important once markets are adjusted.

The West will produce more beef than now. Proper lease laws, and regulation of range and grazing grounds will increase their meat producing power. This has already been shown in the grazing lands of the forest reserves.

The United States will always need immense quantities of beef. The American workman must and will have meat, and this will be beef so cheap he can pay for it.

THE BALANCED RATION.

It seems that the principal reason why so few farmers feed a balanced ration is that they think it is something so complicated that an ordinary man cannot understand it, and impractical because he hasn't all the feeds necessary at hand, and it is to be practical only by experiment stations. If we give the matter our careful consideration we will see that the only logical way of feeding is to feed such a ration as will meet the requirements of the animal we are feeding without waste. In short, a balanced ration is one that is in harmony with the animal.

Economy of the Balanced Ration.

So many farmers think they have got to feed what they have on hand and cannot afford to buy feed to balance the ration. They often feed too much of the feeds at hand, thinking it will make up for the unbalance in the ration. This is folly. An animal cannot use an over-supply of one class of feed to balance the deficiency of another because they are used for different purposes. Our experiment stations have made many tests as to the economy of balanced rations and have always found them to produce the best results. The Kansas Experiment Station made three trials with balanced and unbalanced rations in steer feeding and found that 28 per cent less feed for a given increase in weight was required with the balanced ration. In an experiment at the Nebraska Station with yearling steers it was found that, to make the same gain, 29 per cent less feed was required with corn and alfalfa than with corn and prairie hay, and alfalfa was the same price as prairie hay. In another lot where oil meal was fed in combination with corn and prairie hay the same results were obtained. These tests have not been applied to steers alone, but to sheep, hogs and dairy cattle as well and show that larger returns are always obtained for feed consumed when the animal is fed in such a way that the nutrients are near the right proportion to the animal's requirements.

Selecting Our Feeds.

In selecting our feeds we must start to plan early. We must consider the needs of the animals we have to feed and try to grow a ration to meet them. In doing this we should remember that the more protein we can supply through the roughage the cheaper our ration will be. This calls for alfalfa, clover, peas or other legumes.

The roughage and concentrates must be of such a proportion that the animal will get enough nutrient from what it eats to do the work required always remembering that nutrient is cheaper in the form of roughage than as concentrates. For example, a horse: It has a short digestive tract and a limited time to eat in, so in order to maintain his body and do work, we must give him a concentrated ration consisting mostly of grain. When a horse is not working we should feed less grain and more hay as he has more time to eat in and requires less nutrient as he has only his body to maintain. Again, a cow with her long digestive tract is able to handle more roughage and we are safe in giving her all the roughage she will eat, and just enough grain to meet her requirements, which is approximately one pound of grain to three to five pounds of milk. A brood animal should have a laxative ration with plenty bulk to distend its digestive organs.

The Three Classes of Feeds.

For convenience in making up our rations we can divide the compounds of which our feeds are composed into three classes according to their use in the animal, namely protein, carbohydrates and fat.

Protein, the most valuable and the rarest of all three classes, goes to make lean meat on the animal and is the only class that will do this. It is contained in a larger per cent in alfalfa, clover and other legumes and oil meal cotton seed meal. It differs from the two remaining classes in that it contains nitrogen. Protein

are therefore often called nitrogenous compounds.

Carbohydrate, the most abundant and common of all the elements, goes to make fat and heat. It differs from protein mostly in that it contains no nitrogen. Most all our roughage, such as corn fodder, wild and timothy hay and straw, contain a high per cent of this element. We need not worry about carbohydrate being lacking in our ration, as it is a large per cent of most of our roughage and farm grains.

Fat, another non-nitrogenous food, is found most abundant in our grains, as in flax and cottonseed. They contain as high as 36 per cent, while oats contains only about 5 per cent, and wheat 2 or 3 per cent. It serves every much the same purpose as the carbohydrates in animal nutrition, but is more valuable, pound for pound. One pound of fat being equal to 2½ pounds of carbohydrates in the production of animal heat.

I have now shown the economy of the balanced ration and discussed the three classes of foods which enter into our rations and their use in animal life, and the proportion in which they should be fed, so we are ready to study our feeding standards and the composition of our feeds and see how good a ration we can make and then watch the results from feeding it. These feeding standards can be obtained from the experiment stations free of charge, and by studying them any farmer will be able to make a well balanced ration, thus producing a cheaper product.—J. S. Bredvold.

URGES FARMERS TO RAISE BABY BEEF.

"The raising of baby beef can be made a profitable venture in Wisconsin if the proper methods are followed," said John L. Tormey of the College of Agriculture when asked for his views upon the opportunities of beef production in Wisconsin.

On account of its nearness to market, together with its many other advantages, such as its good climate, its abundance of feed and forage and good water, Wisconsin offers excellent opportunities to the baby beef producer. The feeds upon which calves can be fattened for the market can be grown in Wisconsin, thereby making cattle feeding in the Badger State a decidedly home industry.

When raising baby beef it is extremely necessary, according to Mr. Tormey, to have cattle of good beef type, and the pure-bred bull route is the shortest, quickest and best way to get them. The Shorthorn breed is desirable in Wisconsin, for besides having size and good feeding qualities, many of the cows are good milkers and can be disposed of very readily to the farmers who wish to milk them. The Aberdeen Angus and Hereford breeds are also good producers of this class of beef.

The question of feeds is an important matter for Wisconsin beef producers to consider, or in all cases, feeds which produce the most gain for the least money should be used. A silo is practically indispensable to the baby beef raiser. Corn, cotton-seed meal, clover or alfalfa hay fed along with silage will produce cheap gains.

ECONOMY IN OPERATION.

For one keeping five or more cows, it is economy to own a hand separator. According to the Purdue Experiment Station, by using a cream separator there is a saving of \$3.50 to \$7 per cow per year, over the gravity system. Besides a more thorough skimming, the centrifugal separator produces a better quality of cream and a more satisfactory thickness, removes many bacteria and other impurities and produces a skim milk in good condition for feeding. If separator is used, the milk should be separated while still warm, as the separator has its greatest efficiency if the milk has a temperature of 90 to 95 degrees Fahr. If the cream is to be held for several days before churning, it should be kept in a can with a clean cloth tied over the top to

400,000 Settlers a Year

Immigration figures show that the population of Canada increased during 1913, by the addition of 400,000 new settlers from the United States and Europe. Most of these have gone to farms in Manitoba, Saskatchewan and Alberta.

Lord William Percy an English Gentleman says:

The possibilities and opportunities offered by the Canadian West are so infinitely greater than those which exist in England that it seems absurd to think that people should be impeded from coming to the country where they can most easily and certainly improve their position."

New districts are being opened up, which will make accessible a great number of homesteads in districts especially adapted to mixed farming and grain raising.

For illustrated literature and advice, apply to the Superintendent of Immigration, Ottawa, Canada, or to the Canadian Government Agent.

See A. Cook, 125 W. 9th St., Kansas City, Mo.

J. J. Broughton, 112 W. Adams St., Chicago, Ill.

EDLAND CHINAS and Aberdeen Angus. We breed them large and smooth. Our friends made them famous. J. P. VISSERING, Box 9, Alton, Ill.

keep out the dust. It should not be subjected to odors of any kind, as cream and milk absorb odors very readily. If milk or cream is kept in the same compartment of a refrigerator with meat, vegetables or fruit, it will take on strong odors and tastes, which are often mistaken for a sour or impure product. No new cream should be added to the old until it has been thoroughly cooled.

BUILDING A GOOD FOUNDATION.

Many breeders of pure-bred cattle are in danger of falling into the dealer class. They buy cattle to resell, with the result that their own herds are neglected. While it may be true that it is possible to make more money for a few years by this practice in the long run it spells ruin. A man must spend all of his time looking after his herd; unless his shadow is over the work all the time, labor is never so efficient. In raising cattle, as well as in other industries, one cannot serve two masters.—W. A. Freehoff.

If you would make a profit with dairy butter ripen cream properly and churn at right temperature. Wash granulated butter until milk is removed. Work just enough salt with judgment and pack neatly. If kept at a temperature of 40 degrees bacteria in milk will not increase, but at 65 the increase is by millions. Never add any substance to prevent milk souring. Cleanliness and cold are the only preventives needed. Milk should be delivered in good condition. When cans are hauled far they should be full and carried in a spring wagon. Utensils for farm use should be made of metal and have all joints smoothly soldered and never allow them to become rough inside.

Oftentimes buckets, strainers and other utensils have crevices and corners in which milk and dirt may lodge and become the source of numberless bacteria and bad odors. This may be avoided by using only vessels which have no sharp corners and in which all crevices have been filled with solder. The cream separator, if not properly cleaned, is also a source of bacteria; though if properly cared for it will eliminate part of the bacteria from the milk and cream. It should be carefully washed and aired after each separation. In washing separators and other milk utensils, it is well to observe the following rules: First, rinse the parts in clear, luke warm water; then wash in hot water, using washing powder. Rinse in warm water, and sterilize by holding over live steam or dipping in boiling water. Set where the parts may drain well and dry by evaporation. Never wipe them dry with a cloth, as most drying cloths are infested with bacteria. If possible, put them where they will be exposed to the direct rays of sunlight, as sunlight is a great germicide.

FARM ORGANIZATION.

After all the talk about greater farm prosperity through increased yields per acre we are gradually but surely being forced to admit that this may be one of the minor factors in increasing permanently the net income on the farm.

On many farms if not the majority of farms the greatest problem is the organization of the different operations, activities and enterprises into a smooth working, large net income producing machine.

This is a different problem on every farm and one which the farmer must work out largely for himself with occasional help from the outside, in development plans to be followed.

How many farmers frequently and seriously ask themselves if their methods and plans are the best they could use? How many ever seriously question the correctness of their farm organization and wonder if a different adjustment might not be for the better.

The determination of what crops and animals to raise, how many to raise and when to raise them, the economical utilization of the man and horse labor and the profitable use of all the resources at the hands of the farmer is more important than simply increasing the yield per acre or of getting a bigger price per unit for what is sold.

In order to work out these organization problems farmers must have detailed first hand knowledge of their own "businesses." This information can be obtained by keeping systematic business and labor records.—D. W. Frear, Colorado Agricultural College.

PARCEL POST AND THE FARMER.

The parcel post was instituted to benefit the producer and the consumer. No doubt the farmer is the man who should reap the greater reward from the parcel post. He grows what the consumer in the city needs and must have. For a small sum of money he can put his products down at the door of the consumer who will pay him a good price for them. Yet to the present moment how few farmers are really availing themselves of the parcel post. Look at the advertising columns of the papers published in the cities, and you will seldom see the advertisements of a farmer who is trying to get in touch with the consumer in the city. No doubt the consumer would be glad to find the honest farmer who would furnish butter, eggs and vegetables that are fresh and good even at the price he must pay the city merchant.

Mr. Trotter, who is the chief clerk of the first assistant postmaster general, is making a tour of the western states to ascertain how the parcel post business is being handled. He has been pleased at the speed and ease with which the mail men handle the business, but he has also learned that the farmers have not fully realized what the parcel post system means to them.

Here is what he says: "We find that the city has taken the fullest advantage of the parcel post to send packages out to the country; but there has been comparatively little produce coming in from the country to the city; yet this is where the system offers its greatest possibilities. It was to increase the flow of parcel post mail from the country to the city that Mr. Burelson recommended the increase of the weight limit from 50 to 50 pounds."

So the producer and the consumer should wake up to this fact. Somehow a plan ought to be formed by which the consumer and the producer can come in close contact. The town business man is not the only one that should be benefited by this new plan. He is advertising his stuff extensively. It pays him, and why should it not pay the farmer to get in touch with the consumer. Then would it not pay the consumers in the city to get together and do a little advertising for their needs from the farm. An organization like this would put

the farmer in touch with those who would be willing to buy his products.

In order for the parcel post to be satisfactory to the consumer the farmer must be honest, clean, efficient and prompt. He cannot fool his customers and hold business. The produce must be first class in every respect. It must also be clean. The filthy producer will soon be out of business. He must be prompt in his deliveries so that his customers will not be disappointed and put to great inconvenience. This will enable him to meet any competition.

It seems that the government has spanned the chasm between the consumer and the farmer, and the parcel post should be encouraged and used extensively by the former.—W. D. Neale.

BREAKING THE STALKS.

After the stock have trimmed the stalks closely it is a good plan to break them down before plowing the land in the spring. This can easily be done while the ground is frozen solid. A sixteen-foot pole can be secured from the woods and a horse hitched to each end. Then a boy on each horse can manage the business. The pole will be long enough to catch three rows of stalks as the horses proceed across the field. The single tree can be fastened to the end by means of a chain that is made secure to the pole by fastening it in a groove about six inches from the end of the pole. When I was a boy my brother and I would put a saddle on each horse, and mounting them early in the morning after hitching to the pole, we would strike out across the field, sweeping down four rows at a time. We could break twenty acres of stalks each day with little trouble, and we enjoyed the fun. We thought it great to hear the stalks snapping from the frozen ground. After they were broken down we would take a stalk cutter and cut them up and plow them under for fertilizer. Some folks would burn the stalks after they had been broken down, but we thought this was a waste of good fertilizing material. It may have been a little easier to rake the stalks with a sulky rake and burn them, but we never thought it best to rob the soil in that way.—W. D. Neale.

The Grand Circuit meeting of the Michigan State Fair Association will be independent of the State Fair this year. The dates are September 14th to 19th inclusive, and will be held the week after the fair.

The hen's place on the farm should not be a housewives' proposition, but rather, a farm proposition. The farmer should plan for them when he lays the outlines of his farm management. Little things often bring big results and the hen may be one of the neglected opportunities of the farm.

Weekly Market Report

**Good Grades of Cattle Are Steady—
Hogs Moderately Active—
Sheep Dull.**

CATTLE—Beef steer offerings quite fair, but there was not even a sprinkling of choice to prime grades and the greater part of the supply consisted of medium to good grade steers. Market was rather slow to start, but as the day wore on the activity increased, and the feeling became firmer. Anything that looked like a good steer was in good request and prices were steady on the good to choice kinds. Medium grades, however, were rather slow and moved at a decline of 10c from last week's close. The top was \$8.85, made on good weight steers and a tidy sprinkling of yearlings and desirable grades of heavies went at \$8.65. A bunch of Kentucky steers sold for \$8.60 and

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a load of Tennessee steers made \$7.50. There was an early clearance.

The quality of the heifer showing was good, as several loads of choice kinds were included. Heifers found only a fair request from outsiders and packers were in a bearish humor. Market was rather slow throughout the day. Best grade of light to medium weight helpers, however, sold mostly steady although there were some complain in places that prices were a shade lower. Bulk of the

medium to good grades sold 10c lower. A bunch of yearling steers and helpers sold for \$8.75, and there was a fair sprinkling of good grades that went in range of \$8@8.60. Cows were in fair supply and there was a rather heavy proportion of choice kinds offered. Butchers manifested some interest in the market, and bulk of the cows sold steady. Bulls reflected no change.

Trade in stockers and feeders continued on a firm, active basis and there was a change in prices from the close of last week. The supply was only moderate, but the quality was good, as several bunches of choice feeders were offered. The demand was of right good strength and feeders and stockers shared the request about equally. Best feeding steers sold up as high as \$7.60, but no strictly fancy kinds were offered. The demand for she-stuff was fair and the small showing offered moved freely at steady prices.

The big end of the Southern steer offering was from Arkansas and Alabama. Short-fed stuff made up the bulk of the offering. There was a good demand for what was on hand and market was active while the showing lasted. Prices on the fed stuff out of Southeastern territory were steady and the Texas and Oklahoma steers brought \$7.25@7.50. Most of the other steers sold at \$6.25@7.25. There was only a small proportion of canners and she-stuff offered, and there were no changes in the market prices.

HOGS—A good demand existed from the start and early sales were on a 5@10c higher basis, but the market quieted down, the late trade being 10c lower than the opening. Packers were determined to not pay any of the advance and did scarcely no business at all during the forenoon and not a great deal during the afternoon. Several loads went at \$8.85, which proved to be the top, while the bulk

of the good hogs went at \$8.60@8.75. The best price in Chicago was but \$8.70, or 15c under the local top and the bulk was also highest here. The local top showed 27½c higher than the top in Kansas City. Hogs with a little quality and weighing around 200 pounds and over were best sellers and brought \$8.75 and upwards, while the plain and mixed grades sold largely at \$8.50@8.70.

Packers toward the close of the day were bidding \$8.60@8.85 for strictly good hogs and it was a case of take their bid or hold the hogs over. Shippers and butchers filled up before noon and quit. Rough packers sold mainly at \$8.35@8.50, with a few even lower than this.

Lights and pigs that were good brought good prices and are now selling up pretty close to what the medium and heavy hogs are bringing, but the poorer kinds are not going so readily and are hard to sell.

SHEEP—Only two loads of Western lambs and a load of thin sheep were received. There was no material change to the trade. Packers were somewhat disappointed at not receiving a large supply. The bad weather was the main cause of the small supply.

The best kind of lambs offered were Westerns fed in Shelby County, Mo. There were 136 head of them that averaged 79 pounds and sold at \$7.85, which was the top of the market and the same prices as the highest paid last week. Another load of Western lambs that weighed 75 pounds sold at \$7.55. The sheep weighed 83 pounds and sold at \$3.50.

HORSES—There was a right liberal supply of horses for the auction, the run embracing about 1900 head. This supply may be compared with 1500 head a year ago. There were plenty of Eastern and Southern buyers on the market and trade was of a good steady order.

MULES—This sudden change in temperature and heavy snowfall tied up the general trade in the mule market, according to commission men, and there is little if any demand for any class of material. There are many mules in the barns and there is no demand whatever, and only a few were disposed of. Shippers are advised to keep their stock off the market at present and they will find a poor demand and in a majority of cases unsatisfactory sales.

Horticulture

THE LONE PINE.

Dawn on the mist; above the trees
A lonely pine uprears
Long ghost-hung branches to the
breeze,
Scarred with the olden years.

The mist writhes upward, at the spell
Of some far-hidden bird;
But clearer grows the sentinel,
His brethren dim and blurred.

So stand, my soul, amid thy fears
High over wind and wraith;
Across the darkling drift of years
A sentinel to faith!

—H. Bedford-Jones.

THE BUYING OF FRUIT TREES.

The commercial fruit grower and the farmer fruit grower, in particular, has suffered from careless buying of fruit trees from irresponsible tree dealers and agents. Many are induced to purchase because the trees are offered at a low price, so low in fact that the reputable nurserymen cannot afford to grow them and sell them at the price quoted. The difference in cost between first-class trees and culls is insignificant when we consider that the trees planted are to grow and produce fruit for a great number of years and that the first cost of the trees is the smallest item that we consider at the time during which the trees are supposed to be productive. Further, the irresponsible dealers and agents are apt to sell any kind of trees, regardless of the variety that is ordered. In other words, they are in the business for immediate gain and not for the future. They seldom appear in the same locality for more than one year.

When a farmer or fruit grower purchases fruit trees, he wants to be reasonably sure that the trees are first class and true to name. The fruit growing industry in Colorado has suffered more from wrong varieties and poor quality of trees planted than from any other cause and it is a sad fact that most of the orchards, commercial and otherwise, consist of a mixture of more or less worthless varieties for which there is little or no demand.

The best tree for planting is a yearling one, straight and unbranched. It should have a well developed root system and be free from crown-gall and other diseases which are apt to be transmitted to other trees in the orchard. While it is difficult for the average farmer to tell whether his trees are free from diseases or not, he can easily tell whether the roots have a clean appearance and free from gnarls or knots and hairy roots. Two and three year old trees should never be bought, as they are harder to start to grow and difficult to prune to a desirable shape, as the branches are already formed in the nursery, where they grow under crowded conditions. Yearling trees are easy to obtain, especially from Western nurseries, though more difficult to obtain in the East, where the growth is slower and yearling trees are hardly large enough to sell. Fruit trees are sold by diameter, regardless of shape. In other words, size is the standard by which the nurseryman sells his trees, and when two or three year old trees are bought, they are headed to suit the nurseryman but not always the grower.—E. P. Sandsten, Colorado Agricultural College.

CHARD VACANCIES.

If there are any vacant places in the orchard on account of the death of a tree, a new tree should be set out in the fall to take its place. It is necessary to cut back the head of the tree when setting it. If the top is left too full, the leaves that will start will act as so many pumps to pump the life from the roots.

It is well to cut off all injured roots. After the trees are in place and the best of the top soil is placed on and around the fine-fiber roots, throw a pail or two of water into the hole; anders who have tiled their lands to find

When the tree is in position, throw in the rest of the dirt and trample firmly. When spring comes, the trees, if properly set and cared for, are ready to begin business.

RAISING HERBS.

While the greater number of plants employed for medicinal purposes are valued for their roots, barks, or leaves, some are also useful on account of their flowers, fruits, or seeds. Such flowers, fruits and seeds as seem to be in greatest demand at present are described fully in Bulletin 26 just issued by the Department of Agriculture, written by Alice Henkel.

Flowers, says Miss Henkel, bring the best price when, after drying, they retain as nearly as possible their natural color and odor. They should be gathered when they first open, or at least very soon afterwards, and no faded flowers must be included. In seeking to preserve the natural color the flowers should be carefully dried in the shade and prevented from becoming moist. Fruits or berries should be gathered at maturity and must be very carefully dried, so that they may not adhere to each other or become moldy. Seeds should be collected as they are ripening, just before the seed pods open or as they are about to open. They may be placed in trays and dried in the open air and shaken frequently to insure drying throughout. Bits of stems or leaves or shriveled seeds should, of course, be removed.

Included in the list of our common plants mentioned in the bulletin is the lowly Jimson weed, also known as Jamestown weed or lily, thorn apple, devil's trumpet, mad apple, apple of Peru, stinkweed stink, fireweed and dewtry. Jimson weeds, as most farmers know, are common to fields and waste places, occurring throughout the country, with the exception of the north and west. It is a native in the Tropics and widely scattered in nearly all warm countries. Jimson weed produces rather large, showy flowers from about May to September, each measuring about three inches in length, white and funnel shaped, and having a strong odor. The seed pod consists of a dry, oval, prickly capsule, which when ripe bursts open into four valves containing numerous seeds having a disagreeable odor when fresh. The seeds are dull black, about one-sixth of an inch in length, kidney shaped, flattened, wrinkled, and marked with small depressions.

For the collection of the seeds of the Jimson weed, the capsules should be cut from the plants when fully ripe but still green. These capsules or seed pods should then be dried and after a few days they will burst open, when the seeds can be readily shaken out. The seeds should now be thinly spread and carefully dried. Jimson weeds are poisonous, like the leaves, and are used principally in asthmatic troubles. They bring about six to seven cents a pound. The leaves are also used medicinally and are official in the United States Pharmacopoeia.

CELERY AND DRAINAGE.

The land upon which celery is grown must be thoroughly drained. It should not be presumed that, because celery grows best upon muck lands, it will thrive on wet soils. The crop must have thoroughly drained soil to produce plants of high market value. Celery becomes stunted or diseased on wet lands.

Open ditches are generally relied upon to drain the fields and should be constructed in such a manner that they will drain the soil to a depth of two or three feet. It is often advisable further to drain the land by running lines of tile between the ditches. These should be run at least two feet below the surface, while a depth of three feet is more desirable.

The common mistake of growers thus far has been in setting the tiles too shallow and not allowing for the settling of the soil on these lands after they have been cultivated a few years. The soil settles very considerably on the muck lands, and it is a very common experience of the growers who have tiled their lands to find

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them so shallow, after a few years, due to the settling of the soil, as to cause considerable trouble in plowing

SPRAY THE SCALE.

After all brush and rubbish have been removed from the orchard, the trees should be sprayed for San Jose scale with lime-sulphur. Use a good grade of the commercial lime-sulphur testing about 35 degrees, diluted about one to six. There is no danger in making it strong now, so it is best to make it strong enough to do its work.

HAUL THE MANURE AND SPREAD IT NOW.

Of all the year now is the best time to return as manure a part of the fertility that has been taken from the soil the past year or years. The ground is frozen so that you can get upon it with a load and this is a season when the farm hands and the teams are not needed for other farm work. If you have grass land which you expect to break after the next crop of hay that is a good place to put the manure. Orchard lands will do better, too, with a good coat of manure now but it should not be put close to the trunk of the trees for a home for injurious insects. A light surface dressing of eight to ten loads of manure per acre will increase the yield of grain next year if applied properly. For this a fine manure should be chosen and scattered uniformly so that no lumps will form to burn the small grain plants. If there is no other place to put the manure put it on the fallow land and you will be amply paid for your trouble in the next crop you raise there. In regions where moisture is likely to be low any year it is not a safe practice to plow manure under soil that is to be used for a crop the next year especially if the manure is coarse. It will cause the soil to dry out.—P. P. Petersen, Professor of Soils.

GOVERNMENT WINS FOOD CASES.

Notices of judgment have recently been published by the Department of Agriculture in three cases involving adulteration or misbranding in violation of the Food and Drugs Act, as follows:

In a libel filed in the District Court for the Southern District of New York against 151 cans, each containing approximately 25 pounds of frozen eggs, and 43 cans, each containing approximately 50 pounds of frozen eggs, which had been shipped in interstate commerce, it was alleged that the eggs were adulterated in that they consisted in whole or in part of a filthy and decomposed animal substance.

On October 22, 1913, the court ordered the product to be destroyed and the costs of proceedings, amounting to \$66.12, to be assessed against the claimant.

New Wooster Preserving Co., of Wooster, Ohio, was charged with the interstate shipment of a quantity of tomato catsup, alleged to be adulterated in that it consisted in whole or in part of a filthy and decomposed vegetable substance. On May 16, 1913, the defendant company entered a plea of guilty and the court imposed a fine of \$25 and costs.

The Board, Armstrong & Co., Corporation, of Alexandria, Va., were charged with the interstate shipment of a quantity of so-called apple vinegar. Adulteration was charged for the

reason that a certain substance consisting of a mixture of a foreign material high in reducing sugars and dilute acetic acid or distilled vinegar had been mixed with the product so as to injuriously affect its quality and strength and had been substituted in part for the article. Misbranding was charged in that the article was not as represented on the label. On October 23, 1913, the defendant company entered a plea of guilty and the court imposed a fine of \$10 and costs.

Tomatoes do best in a warm soil, either a good sandy loam or a light clay loam being suitable. It should be moderately rich in available plant food.

Commercial fertilizers should be applied broadcast. The corn roots ramify through the soil and utilize fertilizers so applied to better advantage than when they are applied directly in the row or hill.

Blossoming trees or shrubs which bloom early in the spring should be set out on the south side of a building or hedge. With this protection from the wind, a good sun exposure, and plenty of room, they will bloom a week or ten days earlier than the same kind of plant in a less favorable situation.

The Apiary

Dr. C. C. Miller, of Marengo, Ill., says in "Gleanings": We are told that, when a bee stings, it will circle about until it draws the sting out of the flesh and escape unharmed. I think that's exceptional. Oftener it takes an immediate forcible departure, leaving its sting behind. But when it does perform the circling act, the sting does not always come out of the flesh. One day last summer a bee stung my hand, and as it began to circle, I watched it. First it circled in one direction for a time, then in the other. Then it tried to fly away. Failing in that, it fell to circling again, and directly took flight, leaving its sting in my hand.

Editor Root comments as follows: In our public demonstrations we have caused bees to sting our arms and hands. This is done by picking a bee up by the wings and gently pressing it against the flesh of the arm until it inserts its sting. We then let go of the wings, and immediately it begins to tug away in an effort to free itself. Generally it will whirl in a circle. Sometimes it will whirl one way, and then back up and whirl the other way.

In dozens of cases when we have tried this, we have never known of an instance where it extracted its sting. When it does free itself, it loses its sting and poison-bag, and sometimes a small section of the abdomen. Unlike that of the yellowjacket and hornets, the sting of the bee has barbs. These latter cause the sting to stick in the flesh. Thus a honey-bee can use its weapon but once; but a yellowjacket or a hornet can keep on jabbing because its sting is not barbed.

SEED CORN—Reid's Yellow Dent SEED OATS—New Khersen Oats

Strictly pure bred. We had the best twenty ears at State Corn Show in 1913. Also best single ear in the Canner Corn Contest. We also have Alsike and Timothy Seed. We guarantee our seeds to please you. Samples mailed free.

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The Pig Pen

NINE OUT OF TEN "SICK" HOGS HAVE HOG CHOLERA.

The Department of Agriculture is in receipt of frequent inquiries concerning methods for distinguishing hog cholera from other swine diseases. The specialists in hog cholera investigations answer these inquiries as follows:

Although at first thought this matter of diagnosis appears to be of prime importance, in reality it is not so important or so difficult as it seems. It is estimated that at least 90 per cent of all deaths of hogs from disease in the United States are caused by hog cholera. Therefore, in the case of any fatal outbreak, the chances are about nine to one that the cause is hog cholera. It is true that other infections may and do frequently complicate outbreaks of hog cholera, but in such cases the germ of hog cholera is the primary cause of the disease, and if we can take care of the germ of hog cholera the pig will usually overcome the other infections himself.

The symptoms exhibited by hogs sick of hog cholera are not sufficiently distinct from those produced by other maladies so that a positive diagnosis can be made only through a careful consideration of a number of other factors in connection with the symptoms.

From a practical standpoint the important thing is to recognize hog cholera as soon as possible after its appearance in a herd in order that anti-hog-cholera serum may be applied before the disease progresses too far.

Good serum may be depended upon to protect well hogs, and even to cure a large percentage of those in the earliest stages of the disease, but it will not be of much avail when used upon hogs that are already visibly sick.

The following suggestions to farmers are offered as an aid to the early recognition of hog cholera in a herd:

1. Keep posted concerning the condition and health of hogs on other farms in your neighborhood. Sick hogs on a neighboring farm are a positive menace, for the germs of hog cholera are easily carried on the feet of men or animals.

2. Look over your herd regularly, in order that any sick hogs may be promptly discovered.

3. If any hogs in the herd are found to be "off feed" or appear in anywise sick, separate them immediately from the remainder of the herd, and keep them and the main herd under close observation daily. If there is a tendency for the disease to spread in the herd the trouble is probably hog cholera. This diagnosis may be confirmed by killing one of the sick animals and examining the organs in the manner described in Farmers' Bulletin 379.

4. When the first symptoms of sickness are observed an immediate change of feed sometimes corrects the trouble. This is particularly true of swill for hogs.

5. If there is any tendency for the disease to spread in the herd do not temporize, but immediately treat the herd with serum from the State College or State Live Stock Sanitary Board. Prompt administration of the serum is essential to success.

6. Remember that hog cholera kills millions of hogs where other diseases kill thousands. Dismiss from your mind all thought of such diseases as "jung plague," "infectious pneumonia," "pig typhoid," etc., for these are generally merely fanciful designations given to hog cholera by uninformed men.

THE SOW THAT EATS CHICKENS.

The sow that eats chickens will devour a good sized one each day if she can get hold of it. That would be at least twenty-five cents per day. It is expensive to keep a sow like this very long. If I owned such an animal, I would certainly do one of three things with her. If she was a very valuable sow I would try to break her from eating chickens. Some one has said

that if she is given a salty piece of bacon about the size of one's hand it will satisfy her appetite for flesh. One man told me he cured a sow by this plan and it is certainly worth trying if the sow is a good brood animal.

If this plan did not work, I would keep her in a pen around which was a chicken wire fence. Or I would remove her to some remote part of the farm where the chickens never ranged. Of course if she was breechy and liable to tear down fences and return to the neighborhood of the poultry yard, I would have to be very careful to make the pen strong enough to hold her.

If I found that neither of the above plans were satisfactory, I would put the sow in the fattening pen and get her off to market as soon as possible. I simply would not keep a sow that will eat her price in chickens in a few months. I like chicken too well for that, and I have a little regard for the feelings of my wife whose heart strings are tied in some degree to the flock of chickens. There is one thing I would not do which I desire to emphasize. I would not sell this chicken-eating sow to my neighbor or any other man, for I might know that if she ate my chickens she would devour the chickens belonging to another man. And I am sure I would not wish to incur the ill will of any man.—W. D. Neale.

Can you get ten pounds of pork out of a bushel of corn? That is what the big men tell us we ought to do.

A mess of partially eaten food left in the trough is distasteful even to a hog, and makes him eat less and with less relish than he otherwise would.

It is a mistake to think that hogs or any other animals can shift for themselves while they are young, and then think that you can make up for such neglect in the end.

After the pigs are once put on full feed for fattening, they should be fed with all that they will eat with a relish, for as a rule the shorter the fattening period, the larger the profit.

The older a hog gets, the more it costs to put a pound of meat on him. The experiment stations have established this truth beyond all argument. Early to market is the way to capitalize this information.

The fall pigs can be made profitable, but in order to make them so, it requires a little judgment in handling and feeding. Fall pigs cannot thrive on ice water and corn, and the slop that is given them will be far more palatable and nutritious if one will arrange a mixing tank and scald it, feeding it to the pigs warm. They will eat it up quickly and go to bed warm and comfortable.

If oats are cheap and plenty they are an ideal feed to supplement corn and forage crops in the brood sow's rations. There is something in oats that makes them very valuable for the growth and development of unborn animals that we do not find in any other feed.

As a rule, oats are too high in price to feed only in small amounts, but one never fails to get good results when the brood sows have plenty of oats along with their corn and forage.

Exercise is essential to good thrift and in very cold weather it is sometimes necessary to force the hogs to take this needed exercise. Some people keep their hogs in a long, narrow enclosure and place the sleeping quarters in one end and the feed trough in the other. This is a good idea for they will get much needed exercise in walking to and from their feed. Sometimes on nice days if a little grain or shelled corn is scattered about their yard they will work about nearly a whole day and thus get the exercise so essential to proper gains. The feeder should see that his hogs get exercise even if he has to go out and drive them about gently for a half hour or more.

The Shepherd

MUTTON GAINING IN FAVOR.

According to the agricultural year book, there are a million less sheep in the country today than there were three years ago when the last census was taken. There are at the same time 5,000,000 less cattle. These facts are insignificant when one takes into consideration the fact that in the meantime population has been slowly, perhaps, but none the less steadily increasing.

Mutton is a meat more closely allied with beef in point of texture and flavor than is the flesh of any other animal, and it is not unreasonable to suppose that mutton will be utilized to make up the deficiency of beef upon the market. Mutton is selling at a cent or two less per pound wholesale than is beef, and this fact will have its influence in making mutton a still more popular food product.

In view of this great shortage both in the beef and mutton market, it would seem that the price of mutton is not at all likely to decline in the coming years, but, if anything, will go higher. Aside from all question of meat scarcity, mutton has been making for itself a secure place upon the American family table.

Formerly mutton was more or less despised by the common people, although a juicy lamb or well flavored mutton roast has always been considered a great delicacy by the epicure. In the last few years farmers have come to realize that they have in the fine fat lambs they grow both a cheap and highly desirable food product, and many a lamb is used in the nourishment of the hungry, healthy rural family.

The small size of the lamb carcass, which enables it to be used up by one or at least two families before it spoils, even where refrigerating facilities are entirely lacking, has tended to increase its value for use upon the farm. Just as the farmer has come to regard mutton with increased favor, so also has the working man of the city.

He may get lamb a little less fresh after slaughter, or it may be a little older before slaughter, and he may get not the chops, nor the cheaper cuts like the breast for fragrant stews, but none the less he has acquired the taste for mutton which is likely to stay with him. Thus the natural demand for mutton the country over has increased. When in addition to this we get the increased demand through the shortage of this and other flesh products, it would seem that the future of the sheep industry is assured.

Not every farmer is in a position to grow sheep in large numbers. Not every farmer has had the experience or indeed possesses the ability he should have to make a success of sheep growing upon a large scale. Still there are few farms which would not be better off for having a few sheep grown upon them, and few farmers who could not make profit by growing sheep in small numbers.

It is not wise for any one lured on by the outlook for better prices to rush head over heels into the sheep business and buy large numbers of sheep before he has learned how to handle them or has been able to "find himself" in connection with the business, but many farmers can enter conservatively and intelligently into the growing of sheep.

They can pick up young ewes, that are thrifty, free from worms, well woolled and of good mutton conformation, and by breeding these to the best sire they can get hold of, get their flock started slowly, but in the right way. There is both money and satisfaction to be found in the consistent and continued growing of the sheep. It is a legitimate business and rightly followed is bound to bring rewards.

BREEDING EWES.

In selecting ewes for the breeding pens choose those which come as nearly as possible to filling the requirements of the breed you will

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As usual we are ahead of the rest. Ahead in style—ahead in quality—ahead in designs—ahead in price and ahead in terms. So far ahead that you will be behind the times if you do not wear one of our new, hobby suits this spring.

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handle. With this foundation-stock one can, by careful breeding and close culling-out of all undesirable members every season, establish a standard in his flock that will create a ready and profitable demand for all the surplus stock he can produce, at a high figure, for breeding purposes.

KARAKUL SHEEP.

The town of Astrakhan on the Caspian Sea is the port from which the so-called Persian lamb comes to this country, and the most famous of the breed are grown at a village called Karakul. Therefore these several names are all correctly applied to the one fur.

The Bokhara sheep is the animal which produces so many fine coats for wear, and the finest silkiest, most closely curled skins are those of the lambs killed within four or five days after they are born. If allowed to grow up, the sheep's fleece is grayish brown and thick and coarse, so the baby lambs are slain for the hides before the tight curls have time to unroll. Dr. Young, of Texas, in conjunction with the department of agriculture, recently introduced the Bokhara sheep into this country in the hope of establishing a new industry.

LAMB FEEDING.

A ration consisting of one part of ground wheat, two parts of ground oats, one part of cornmeal, and one-fourth part of linseed oilcake, pea size. Is good for feeding young lambs, although any combination may be used, provided it contains considerable of the nitrogenous element.

Overstocking with sheep should be avoided; it is injurious to the sheep and ruinous to the farm.

A perfect fleece is a certificate of perfect health in the sheep and of good management of the flock.

Because sheep will make a better use of a poor pasture than will any other stock, it is poor economy to keep them in one that is bare.

To a considerable extent on the ram and his condition depend the quality, condition and vitality of the lamb crop. Everything possible should be done to maintain his thrift at the highest point, especially during the breeding season.

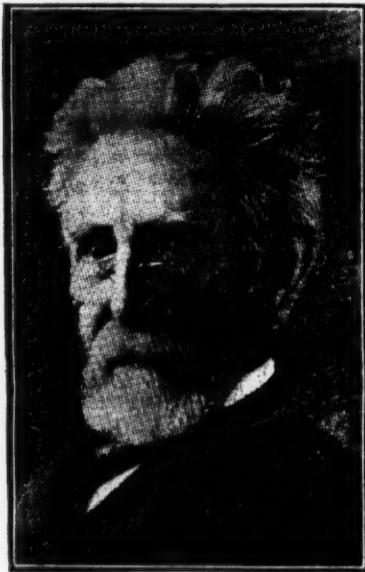
The best way to secure a good start with sheep is to buy them of a neighbor with whose flock you are acquainted, or from some reputable breeder, choosing only a few select specimens, rather than several of lower grades and poor breeding qualities.

Good succulent feeds are essential for the ewes, but they should not be given in too large quantities. A couple of pounds per ewe is enough as too much tends to make the lambs weak and flabby when dropped. Timothy and marsh hays should never be fed as they are coarse and woody and may cause death by constipation.

Colman's Rural World

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WILLIAM N. ELLIOTT, Editor.
C. D. LYON, Associate Editor.



Norman J. Colman,
First U. S. Secretary of Agriculture.

COLMAN'S RURAL WORLD was established in 1848 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a clarion of advanced agriculture this journal has attracted nation-wide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

COLMAN'S RURAL WORLD strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.

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Entered in the postoffice at St. Louis, Mo., as second-class matter.

By building and owning their own market the St. Louis County farmers have taken a long step in advance. This is a practical demonstration of what it means to get together.

Plans were formulated at Chicago at a largely attended meeting of the international brotherhood welfare association to concentrate all the unemployed men and women in the United States to take to Washington a petition to Congress that a legal remedy for the industrial conditions of unorganized labor be enacted.

The spinning wheel, the loom, the fat boiler, the lye barrel, the dipping pot and the mold have all been left behind, and the face of the housewife, like the face of humanity in general, is turned toward the future with all its promise and possibilities. The old things were all right in their way and in their day. It is the new things that concern us all now.

"Gen." Jacob Coxey proposes to celebrate the 20th anniversary of the march of "Coxey's army" to Washington, May 1, by leading another army of unemployed to the capital, this time with the definite purpose of backing up his proposal that the government shall establish in each town of 1000 inhabitants or more a bank which shall lend money to the people.

A portrait of the late P. D. Armour was unveiled last week in the Illinois farmers' hall of fame, established at Urbana to commemorate the services

of Illinoisans who have contributed notably to the progress of agriculture in that state. He was hailed at the exercises as the leading spirit of his time in developing the packing industry. The picture was unveiled by his granddaughter.

The action of the French national socialist congress at Amiens in deciding that where the election of a socialist is considered impossible the socialist vote shall go to the radical candidate, emphasizes the group character of political parties in France and the consequent variance of French socialists from the orthodox standard expressed in Liebknecht's slogan, "No compromise, no political trading."

People of this country are very wasteful compared with Europeans. But if the conservation movement still has to affect the average ordinary home, and especially the kitchen, it is fast making its way into the shop, the factory and the laboratory. That which formerly was despised and thrown away now becomes a by-product, the profits of which often make the margin between success and failure.

The parcel post in Canada quickly follows the parcel post in the United States. Soon the Canadian system will be in full swing and a parcel of 11 pounds will go 200 miles for 22 cents. The weight limit is kept low at the outset. The express companies in that country are in a flurry of anxiety and their rates have already been reduced to meet the new competition. The government will meet the insurance feature of the express companies by insuring parcels up to \$25 in value for an additional fee of 5 cents. Through international arrangements, the time is not distant when parcel post will carry things from the Rio Grande to the Arctic circle.

Highly encouraging are the figures in regard to public schools in the Philippines lately given out by the war department. In 1912-13 there were graduated from the primary course nearly 11,000 boys and 4000 girls; from the intermediate course 3500 boys and 1000 girls; from the high school 284 boys and 58 girls. This year the total attendance is nearly 464,000, of whom 6000 are in the high school, and it is estimated that the schools reach a third of the school population. The limitation is largely due to lack of funds, the outlay being but 47 cents per capita of the total population, as against \$4.45 in the United States. It is obvious that the mingling of these school-trained citizens with the general population will have a strong and increasing influence upon social and political conditions.

RELATION OF SHAPE OF EAR TO YIELD OF CORN.

The superintendent of the Texas substation at Temple, after a careful study of the relation of shape of ear to yield of corn, concludes that slightly tapering parent ears give the highest yields. This is in accord with the results of experiments at the Ohio Experiment Station, in which extremely tapering ears gave slightly higher results than cylindrical ears. High yields were associated with comparatively smooth kernels of slightly more than average depth and of medium horniness. The yield increased with an increase in the total weight of the ear as determined by slight increase in length, amount of grain, and rather marked increase in weight of cob.

In experiments at the Ohio and Nebraska experiment stations it was found that the highest yields were obtained with medium to medium long ears. Poorly filled butts and tips were more frequently associated with high yields than well filled, but high yields were more frequently associated with well filled butts than with well filled tips. "The old score card placed much emphasis on good filling of butts and tips, but for several years past investigators have been getting away from this idea. It has been found that these characters, when highly de-

veloped, are usually so developed at the expense of more valuable characters, such as yield, construction, etc." There appeared to be no relation between yield and shelling percentage and circumference and width or thickness of kernel.

LOSSES FROM RATS AND MICE

Rats and mice cause an enormous loss in cribs where corn is stored over winter. It is difficult to keep them from entering the crib. Often an apparent rat-proof storage house becomes infested and no traces can be found of how the rodents gained entrance. Various methods are used to prevent entrance into the crib. An all-metal crib on a concrete foundation is an effective method of keeping the rodents from the grain. This sort of a crib is expensive, however. Another plan is to elevate the crib on posts some distance above the ground, wrapping tin or sheet metal about the posts. If properly done this method is usually efficient. Another means that may be resorted to, is to use, instead of posts, the elevated crib rested on ordinary sewer pipe. These are set on the concrete foundation with the flange end down. The inside of the pipe is refilled with concrete which is re-enforced with iron rods or bars that may be found about the farm premises. If large enough tile are used and placed upon a good, solid foundation, almost any weight of crib and contents may be carried with safety and rats and mice may be kept away effectively.

FARM LOANS.

One of the strong arguments advanced in favor of a system of farm loans at low interest is the tendency that such a plan might have to lessen the number of tenant farmers. It is agreed generally that the best class of citizens on farms are those who own their property, and so have a permanent interest in the improvement of the land and equipment and the welfare of the community. It is argued that a low rate of interest and long-time mortgage will encourage tenant farmers to buy the property they operate. There will always be a certain class of farmers who will remain tenants from choice or from lack of thrift to accumulate even the 40 per cent or so required to make a part payment, but low rates and long time would give courage to any one thrifty enough to run a farm at a profit.

GOOD ROADS AND THEIR RELATION TO RURAL SCHOOLS.

The rural population is more willing to support better schools today than at any previous time. It is being realized that all educational activities or agencies must be more or less correlated, and, more than all else, that they must be made accessible to the children. In many counties where bad roads prevail, most of the schools are of the antiquated one-room variety. They are usually located along bad roads which, during the winter, when the schools are usually in session, become so nearly impassable as to make it difficult for the children to reach them. This condition causes irregular attendance and restricts the educational opportunities of the child.

Not only this, but it often impedes the economic consolidation of these smaller schools into larger, stronger graded schools, with high school courses, directed by a competent principal and corps of teachers, according to the Office of Public Roads, U. S. Department of Agriculture.

On the other hand, in counties which have improved their roads, the schools are easily reached, the average attendance greater, the efficiency largely increased and economic consolidation made possible. Regular attendance at school means consistent and regular growth of both school and pupil, and consolidation of schools means a maximum of efficiency at a minimum of cost. It is also noteworthy that there is a marked tendency for the consolidated school to become the social and intellectual

center of the community. Most modern rural school houses are so constructed as to serve the community as gathering places for various kinds of public meetings, and where vans are used to convey the children to school during the day they are frequently pressed into service to haul the farmers and their wives to institute work, lectures, or entertainments at the school house. The consolidated school becomes a sort of community center to which all educational and social activities converge, and in order that it may properly perform that function all of the highways leading to it should be so improved as to render it readily accessible throughout the year.

CONTROLLING HOOKWORM IN THE SOUTH.

The annual report of the Rockefeller Sanitary Commission with headquarters at Washington, indicates that as a result of the work done under the direction of the boards of health of eleven Southern states, 480,951 persons were microscopically examined during 1913. This means that more than 1,573 persons were microscopically examined for each work day during the year; an increase of 60 per cent over the record of any previous year. In the central and field laboratories there have been examined to date 858,377 persons. The number of persons treated during the year is given as 186,277, an average of 616 persons treated for each working day; a reduction of 14 per cent from the record of 1912. Considering that the number of persons examined shows an increase of 60 per cent and that the number of persons requiring treatment a reduction of 14 per cent, these figures are significant. Of the 186,277 persons treated during 1913, 66,317 were treated and reported by practicing physicians, and 119,960 persons were treated by members of the staff. The total number of persons treated up to date is 539,107. Infection surveys, based on the examination of a minimum of two hundred country children taken at random between the ages of 6 and 18 years, have been made in 413 counties. A total of 415,250 rural children have been examined, an average of 1,005 per county. The percentage of infection found among them was, for those examined prior to 1913, 55 per cent; for those examined up to Dec. 31, 1913, 43 per cent—a reduction of 12 percent in the degree of infection recorded. Sanitary surveys have been completed in 501 counties, based on the inspection of an average of 378 homes to the county, a total of 189,586 homes inspected. Of these 95,988, or 50 per cent, had no kind of a privy. Progress in sanitary reform is not as rapid as one might like to see it. It is encouraging to note, however, that although the cost of installing sanitary closets means a considerable items to the poorer families, improved closets are being built at homes and at schools.

CO-OPERATION THROUGH FARMERS' CLUBS.

The farmers' club is the natural forerunner of practical co-operation. Co-operation, like charity, should begin at home.

A farmers' club is an informal association of a group of people in a community for the improvement of themselves, and their homes in particular, and the community in general.

No important development is likely to come unless a group of people get together and work for it. Schools, roads and churches all come as a result of a community spirit which determines to bring about improvement.

A farmers' club affords opportunity for community discussion and community action on any question that arises regarding anything in which the community as a whole is interested. Had there been more farmers' clubs, fewer \$400 stallions would have been sold for \$200, and fewer creameries would have been started before the communities were able to support them.—A. D. Wilson, director of agricultural extension, Univ. of Penn.

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KNIFE

NOTES FROM AN OHIO FARM.

By C. D. Lyon.

With the coming of a warm rainy week, or rather ten days, January 25-February 5, the hens began to lay pretty well, many farmers' wives getting two dozen or more per day from the average flock of 125 hens, and the price went off 7 cents per dozen. Wife did not keep an account of eggs laid from about November 10 to the same date in January, but she says that our flock did not always give four eggs per day, and I think three nearer the mark. The average sale price was right at 30 cents per dozen, and the cost of feeding the flock never less than 40 cents per day, so we made lots of money.

The only men who have made any real money this winter are the ones who had good droves of hogs to sell, for while most of the corn is not salable, it seems to have good feeding qualities, and has enabled farmers to sell some extra good hogs.

I brought a sackful of corn down from the barn in the ear and shelled it by hand for the chickens. It was not good corn to look at, but I thought that in spite of many soft cobs, and mean looking ears, it gave about as large a percentage of corn to the cob as any corn I ever shelled.

We are not quite done stripping tobacco, having some 30 rails hanging, and three or four days' work on what is down, but we want to make

a finish to it by March 1 and get it off.

Going back to hogs, there is quite a stir here in favor of the Hampshire breed of hogs, and some of our breeders think them the coming hog, while others are inclined to think that while the devil may have left the other breeds to a great extent, he still abides with the Hampshires. They are certainly good rustlers, in fact fully as good as the Berkshires, a breed they resemble greatly; and one man says that his have been every place on the farm except upon the cross-arms of the telephone line.

My neighbor Davis, whom I consider the best hog man I ever saw, says the devilment in a hog depends altogether upon the way that hog was handled when a pig, and believes that to "train up a pig in the way he should go, when he is a hog he will not depart from it."

He never allows a pig to go anywhere excepting where he wants it to stay, and even his pigs of but a few days or weeks old, are kept in the enclosures where he wants them, never being allowed to range elsewhere.

His hogs are always as tame as kittens, and while his fences are none the best, he has less trouble with his hogs than any other man I know, and all from his habit of keeping them just where he wants them, not running over the farm.

It is pretty much the same with other stock, and you may notice that

the man who has his stock all over the farm always has trouble. I have been watching a case of this recently. A man bought ten small steers and turned them in a field with a poor fence on one side, but as they did no damage on the outside, let them go for a few days, yarding them at night. One night he did not yard them, and had to go a mile after them next morning, and in a week they went about where they pleased.

It pays to teach all stock to remain inside the farm enclosures, and good fences are a great deal cheaper than labor in running after outlaw stock.

We have had real winter weather, February 7-8-9, being very cold, rough days, but as I write, on the 11th, it has warmed up and I look for falling weather soon.

SHELDON (MO.) NOTES.

Editor RURAL WORLD: So far we have had the mildest winter on record, about 17 degrees being the cold-est register of the thermometer.

Save for the mysterious cornstalk disease and some pneumonia or lung fever, cattle and horses have done well on less feed than usual.

About 10 per cent of the horses affected by bloat have died and about the same number of cattle have died from the lung disease.

Wheat has done remarkably well and furnished good pasture for stock.

Sheldon, Mo. C. A. BIRD.

ANSWERS.

By C. D. Lyon.

Two queries in regard to sweet clover, one asking if it does not sometimes become a pest in cultivated fields, and I answer that it never does. The other is in regard to making hay of it. If cut at the proper time it makes good hay, and is but little, if any harder to cure, than red clover.

Both ask if I would sow it in level, tillable fields, and I must answer that this must be settled according to circumstances on individual farms; I would prefer to sow it on the rougher and thinner parts of the farm, rather than on level fields that are in a regular crop rotation.

One query about seeding alfalfa in the spring. According to my experience and investigation, both rather extensive, I would say, that failure will probably result from spring seeding, seven times in ten; and success be attained by August seeding eight times or more in ten, and I think that this fully answers the question.

I put in a good deal of time and study on that alfalfa article, published in RURAL WORLD February 5, and have nothing to add to what it contains, but I will say that I have had several very complimentary letters concerning it.

Our best friends are not those who make life easy for us; our best friends are those who put courage, energy and resolution into our hearts.

I'M MIGHTY BUSY THESE DAYS

—but I gladly take time to have a little heart to heart talk with old friends (and I count each reader of COLMAN'S RURAL WORLD my friend).

AS MAN TO MAN, don't you sort of feel that COLMAN'S RURAL WORLD has a place all of its own in your family? It's an old friend to many thousand subscribers, and I hope its 52 visits each year are looked forward to by someone in YOUR home.

WE HAVE CERTAINLY TRIED OUR VERY BEST to give you the best paper of its kind in the country. We are mighty proud of the issues we have turned out, and I promise you right now that what we have printed in the past is only a taste of the good, helpful

matter that is scheduled for the next twelve months, matter that is for farmers and the good wife and kiddies.

BUT HERE'S WHAT WE ARE DRIVING AT. Is your subscription about to expire? The figures on the wrapper will tell you how you stand. If your time is about out I want you to get in on my special plan of one year for \$1.00, or three years for \$2.00. By doing this you will be sure not to miss any papers.

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bags and many other things with this awl. The patent needle is diamond point and will go through thickest of leather. Awl comes complete with three needles and reel of waxed thread, ready for use the moment you get it. Full directions with each outfit. So simple a child can work it.

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No. 2. EVER-SHARP SHEARS. Eight inches long, equipped with a new and simple attachment that keeps them always sharp, and enables them

blade, black horn handle. With ordinary care will last for years, and won't pull. You will find this razor nearly the equal of any \$3.00 razor. Sent prepaid, ready for immediate use. Extra good value.

No. 3. THREE-BLADE POCKET KNIFE. Made especially for us. Three

No. 5. ONE DOZEN SILVEROID TEASPOONS, 6 inches in length, made of solid silveroid (pure white metal)

which will not tarnish, and lasts for years. The edges are handsomely beaded after the design of the most expensive spoons made. Made for every day usage and keep their brilliant finish.

KNIFE. Made especially for us. Three

Home Circle

O GIVE ME A HOME.

O give me a home with the lavrock and linnet,
As free as the breezes, my wings undefiled.

The blue skies above me, the sunshine to love me,
A child of the open, a waif of the wild.

A home with the blow of the storm to enfold me,
Where Morning awakens with a rose on her breast.

The mists keeping vigil in fondness around her
While lingers enraptured a star in the west.

Unheard be the tumult and wrangle for riches,
Unfelt be the yearning which drags me to earth,
Apart from all scheming and grovel of seeming,
And thoughts which are weaklings to God-given birth.

I'll grudge neither kings, with their varnish of glory,
Nor mortals who drink at the fountain of fame.
If but one little blossom on slopes of Parnassus
Shall twinkle in silence to cherish my name.

Then give me a home in the wild and the open,
Where the heart of the day is as merry as deep;
The stir of the leaves and the wood winds to wake me,
My lavrock and linnet to rock me to sleep.

—Herbert Randall, in Boston Transcript.

AT MY SOUTH WINDOW.

By Adela Stevens Cody.

After a surprisingly long "spell" of spring-like weather, with grass as green in yards and meadows as it is in the latter part of March, with stray violets blooming among the litter of dead leaves and the rose japonica showing big red buds, January suddenly realized that its act on the program this year was marked "winter."

THE SAMPLES ARE GOOD.

By Alice Curtice Moyer.
(Author of "A Romance of the Road," a novel, the profits of which she is giving to the cause of woman suffrage.)

You have heard of the man who emptied the multitude of "little dishes" that were brought to him at a restaurant, and then called for a "full meal," since he found that the "samples" were to his liking.

That is the way of woman suffrage. Wherever it is tried—wherever the people are given a taste or a "sample" of it, a full course is the inevitable consequence. The full meal might not follow immediately; various situations may hinder it in its progress and block its way for a time, but sooner or later it is sure to come. The tendency of woman suffrage is always to spread. There are examples of this truth in many places. Toronto is one of the latest of a long list of these examples. In Toronto the men voted recently in overwhelming numbers to give to married women the municipal suffrage that has been enjoyed by single women and by widows for a great many years. It would seem from this that the spinsters and widows had made good use of their votes. In the greater part of Canada the old custom of wife exclusion is still in vogue, but it is gradually giving way to the demands of progress, and in Vancouver and Calgary, and now in Toronto, the men have come to see the senselessness of barring a woman from a voice in their municipal elections merely because she is married. This old idea is a relic of the days when a married woman was supposed to be "dead in the law," except that she could be punished when disobeying these laws.

But the world does move. Norway began by granting municipal suffrage to a limited number of its women and then followed this up by giving it to all women. Later, she granted parlia-

mentary suffrage to a limited number, then a few years afterward gave it to all her women.

Years ago, in Sweden, there was a limited municipal suffrage granted to women. Recently it has been broadened, and now Sweden's King, Gustave, in his speech from the throne to the Swedish Parliament, recommended that the franchise be given to the women on the same conditions as are enjoyed by men.

In one of the newly enfranchised states, Kansas, the women had municipal suffrage as a beginning.

In Kentucky, widows with children of school age were given school suffrage; now this is extended to all women who can read and write.

These are just a few examples of the many, showing how the seedling spreads and grows till it becomes the fruit mature. All of which goes to make true the old adage, "the proof of the pudding is in the eating."

Whoever produces order in one little corner of the world is a co-worker with God. To make a kitchen clean, to set a chamber in order, that it may not offend, to dust the furniture of a parlor, to shovel the snow from a sidewalk, to remove the weeds from a garden, to make a little of the desert arable, to replace thistle with rose, to drive ignorance out of some mind, to

bring in knowledge and morality! Is not any one of these tasks enough to relate us to God, who has, from all eternity, been working against chaos and disorder?—George L. Perin.

Red Blood
is good blood—blood that nourishes the whole body, and enables every organ to perform its functions naturally. Many people owe it to HOOD'S SARSAPARILLA, which relieves scrofula, eczema, psoriasis, and all blood humors.

bring in knowledge and morality! Is not any one of these tasks enough to relate us to God, who has, from all eternity, been working against chaos and disorder?—George L. Perin.

NO-RUB WASH TABLETS work wonders, no rubbing required, boil clothes few minutes and washing is done. Shirts, collars and shirtwaists look like laundry work. We guarantee them. Splendid proposition to agents. Send 20c for two months' supply postpaid. Union Supply Co., No. 12 Colorado, Huron, South Dakota.

10 "Beauty" Postcards free, with 4 packages new chewing gum for 20c. Address L. B. Jackson, Corinth, Ky.

PATTERNS FOR RURAL WORLD READERS.



In ordering patterns for Waists, give bust measure only; for Skirts, give waist measure only; for children give age only; while for patterns for Aprons say, large, small or medium.

9854. Ladies' Shirt Blouse.
Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 1/2 yards of 27-inch material for a 36-inch size. Price 10c.

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Cut in 4 sizes: 4, 6, 8 and 10-year size. It requires 2 yards of 36-inch material for an 8-year size in one-piece style, and 2 1/2 yards for a two-piece style. Price 10c.

9859. Ladies' Apron.
Cut in 3 sizes: Small, medium and large. It requires 3 1/2 yards of 36-inch material for a medium size. Price 10c.

9680. Ladies' Kimono.
Cut in 5 sizes: Small, medium and large. It requires 5 1/2 yards of 44-inch material for a medium size. Price 10c.

9874. Girl's Dress.
Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 4 1/2 yards of 40-inch material for an 8-year size. Price 10c.

9858. Girl's Dress.
Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 4 1/2 yards of 40-inch material for a 10-year size. Price 10c.

9564. Ladies' House Dress With Cap.
Cut in 5 sizes: 34, 36, 38, 40 and 42 inches bust measure. It requires 6 yards of 36-inch material with 3/4 yard for the cap for a 36-inch size. Price 10c.

9867. Dress for Misses and Small Women.
Cut in 4 sizes: 14, 16, 17 and 18 years. It requires 5 yards of 44-inch material for a 14-year size. Price 10c.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each additional pattern desired.

Fill out this coupon and send it to COLMAN'S RURAL WORLD, 716 Lucas Ave., St. Louis, Mo.:

Pattern No. Size. Years

Bust. in. Waist. in.

Name.

Address.

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SITUATION WANTED—Young Swiss, 35, well educated and good character, speaks English and German, desires position by widow as manager over farm; good home more of an object than salary. E. Koenig, Mt. Vernon, Ill. R. R. 10.

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EIGHT COUNTRY, right climate, right people, right prices, right terms. Write Development League, Bessemer, Michigan.

FOR SALE, \$0 acres, small house, good young orchard, for \$600 cash. Will pay purchaser's railroad fare. Come examine it. G. W. Johnston, Grandin, Mo.

SEED CORN.

SEED CORN—Boone Co. and Johnson Co., ear, \$3.00; shelled and graded, \$2.50. Satisfaction guaranteed. L. H. Galt, Hayti, Mo.

SEED CORN—White Elephant, selected quality, both old and new, all graded, tested seed, \$2.00 per bushel shelled. Robt. Plate, Mexico, Mo.

CORN—1,000 bushels pure bred high yielding seed corn. Dunlap, Williamsport, Ohio.

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FOR SALE—Selected red clover and Indiana grown barley direct to farmers in any size shipments. Write for samples and prices. Tonawanda Grain & Supply Co., Monroeville, Ind.

NEW WHITE SWEET COVER SEED—Also leaf tobacco. J. T. Mardis, Falmouth, Ky.

GINSENG.

GINSENG—Roots for this spring setting; 2 years old at \$30, 3 years old at \$50 per thousand; latter bear seed this year; guaranteed good, clean stock. A. Pace, Box 302, Grove, Okla.

GINSENG SEED—Choice Ginseng Seed \$1.25 per 1,000. Each thousand produces over \$200.00 worth of ginseng. Every farmer should grow it. Order now. E. Douglass, Brawley, Mo.

JACKS AND JENNETS.

MISSOURI'S CHOICE FOR SALE—Any one wanting or needing the greatest coming 3-year-old Jack in Missouri, ready to stand at the head of any herd of jennets, or all the mares he can handle at \$15, come and see this fellow. Jet back, white points, 15 hands standard, 16. Tape, great width and depth, the greatest of bone; action like mule; great performer; either mares or jennets; also 3-year-old jennet, 15½ hands high, the greatest in the world; safe in foal to above jack. Remember this stock is in first hands, where more breeding is done without advertising than any barn in the state; 35 years in the business. Come or write. Col. M. F. Overstreet, Jefferson City, Mo., 122 East Ashley street.

HORSES.

COACH STALLION FOR SALE—Registered, 6 years old, perfectly sound, a great breeder, with size, style and action. Price \$350 cash if taken soon. EVERY MARE he covered past season is safe in foal, and only one returned second time. Write for photo, etc., or come. Ray Rodgers, Bowling Green, Mo.

FOR SALE—Registered trotting stallions, mares, colts and fillies at very low prices. Colman Stock Farm, Creve Coeur, St. Louis Co., Mo.

For Sale—One 2-horse-power spray outfit complete, and three branch outfits, each at a very low price. L. V. Dix, Jefferson City, Mo.

STALLION—For sale, a coming 3-year-old registered trotting stallion, grandson of Ashland Wilkes, 2:17½, sire of 63 trotters and 57 pacers; large; \$250; other breeding stock. W. A. White, Sarcoxie, Mo., R. R. 2.

FOR SALE—A few standard and registered stallions, twelve yearling colts and fillies. Write for prices and description. Colman Stock Farm, Creve Coeur, Mo.

LIVE STOCK.

FOR SALE—Ten choice registered bull calves for sale, from two to eleven months old, from high-class, heavy-producing Jersey. Write me for prices, stating age you want. D. S. Mayhew, Monett, Mo.

HOGS.

MEADOWBROOK STOCK FARM, L. M. Wade, Prop. Centretown, Mo., Breeder and raiser of thoroughbred Poland China hogs. Prices reasonable. Young stock for sale at all times. Correspondence a pleasure.

POLAND CHINAS—Size and bone with quality; open spring gilt by Longfellow's Special 64200, \$20 to \$25 each; gilt bred to Ott's Big Orange 2d 68121, \$25 to \$35 each. Fall pigs by Longfellow's Special 64200, and Sensation Chief 67423, \$16, crated, in December. A. F. Sieker, Defiance, Mo.

HOGS—350 big type Mulefoot Hogs for sale. Dunlap, Williamsport, Ohio.

TO EXCHANGE.

FOR SALE OR TRADE—35 H. P. double Minneapolis plow engine and plows, self-oiling gear, all good as new. Reasons for selling on request. Write for descriptions, outfit is clear. Frank Sromek, Beardsley, Kans.

FOR SALE or exchange for land, cattle or mules. Percheron and two German Coach stallions and Jack; all imported, are good ages; choice individuals, extra good breeders; a bargain for those wanting first-class stock. Am quitting; must sell. E. Throckmorton, Edina, Mo.

BAXTER COUNTY (ARK.) NOTES.

Editor RURAL WORLD: Today finds us in the grip of one of the worst snow storms of the winter. It commenced snowing about daylight, and bids fair to keep it up all day. The wind is in the east and the snow is falling fast. We had a mild, open winter until a week ago. We had lettuce to eat the first day of December, and in strolling through the woods I noticed violets in bloom, and turnips that were left in the patch have been growing all winter. Stock have required but very little feed. My sheep had the run of the fields all winter and have made their own living.

SINGLE COMB WHITE LEGHORNS—Pure white, pure bred. Nice males for sale; no females. Fancy eggs for hatching, \$4.50 per hundred. Good as the best; testimonial on request. J. E. Haynes, Prairie du Rocher, Ill.

FOR SALE—Indian Runners, one drake and five ducks; golden Fawn and White—kind that lay big white eggs. Mrs. Mary L. Singleton, Sisson, Mo.

FOR SALE—White Indian Runner drakes, Spencer strain; pure white. My ducks lay white shell eggs and many of them. Drakes \$2.00 each. J. E. Haynes, Prairie du Rocher, Ill.

EGGS—Fisher strain White Rocks, \$1.25 per fifteen; S. C. B. Leghorns, 75c per fifteen; \$5.00 and \$4.00 per hundred. Wendell Walker, R. 2., Sparta, Ill.

4 S. C. CRYSTAL White Orpington cockerels (Kellerstrass strain) for sale at \$3 each, or trade for pullets or hens. Extra good birds. Write, E. H. Hirsh, Rockville, Mo.

ROCKS, reds, silver laced Wyandottes and Brown Leghorns; eggs by express or post. Write for free poultry book. Sunnyside Poultry Farm, Box 22, Owensville, Mo.

EGGS—From B. P. Rocks, Rhode Island Reds, White Orpingtons; all of the best strains; prices \$2 per 15; \$3.50 per 30; \$5 per 45; satisfaction guaranteed. Mrs. M. E. Oreywiler, Miami, Okla.

EGGS—15 fertile eggs, postpaid \$1; from pure single comb brown Leghorns. Mrs. Kenyon, Tyrone, Okla.

FOR SALE—Buff Orpingtons, hens and pullets; choice breeders. Price \$1.00 each. Also extra choice yearling cock bird; price \$3.00. Geo. L. Snider, Fruitland, Mo.

FOR SALE—Full-blooded Mammoth Pekin ducks. Eggs, \$1.00 per setting. Address Mrs. A. Brower, Rinehart, Mo.

BARRED PLYMOUTH ROCKS—Both matings; eggs reasonable for the quality. Won 1st, 2d, and 5th pullets, 1st, 2d, 3d, and 4th cockerels, and 1st and 2d hens at Jefferson City, Mo., with 143 Barred Rocks on exhibition. W. W. Graves, Jefferson City Mo.

PRINTING.

FARMERS—Your name and return address neatly printed on 25 good quality white envelopes for 15c; 50 for 45c, postpaid. A. T. Olson, Ulen, Minn.

NOVELTIES.

BE A CHICKEN INSPECTOR and have great sport with the girls. Send 10c for official bright metal badge. Cedar Novelty Co., 43 Cedar St., New York.

AGENTS.

AGENTS—A Hummer; beautiful 42-piece guaranteed decorated dinner set FREE for every housewife. Write quick for our plan and photograph showing complete set. The James C. B. Beatty & Son Mfg. Co., Frankfort, Ind.

MISCELLANEOUS.

TYPEWRITER FREE, BOYS—In the next three months I shall give away 1,000 \$2 typewriters to boys who do a little work for me in their spare time at home. For full particulars address Andrew T. Oleson, 3-30, Ulen, Minn.

WILL EACH READER of Rural World please send us 10 cents in silver. We want to have a silver anniversary on papa. He has taken the Rural World 25 years without missing. Address Bertha and Ruth Heckman, Fairview Farm, Route 4, Dixon, Ill.

FOR SALE—One 2-horse-power spray outfit complete, and three hand outfit, each at a very low price. L. V. Dix, Jefferson City, Mo.

BEGIN early for a profitable 1914; sell the Imperial Self-heating Iron; \$2.50 to \$20.00 per day profits; salary or commission; agents wanted everywhere. Imperial Sad Iron Co., Memphis, Tenn.

MEN AND WOMEN earn \$25 weekly writing motion picture plays; easy and fascinating work; complete 40-paged instruction book, 25c. Address, J. A. Willott, St. Charles, Missouri.

FOUR-IN-HAND NECKTIES—60c and 75c. Pure silk and honest workmanship guaranteed. Fred Hansen, Necktie Mfg. Harlan, Iowa.

50 FUN CARDS—Only 10c. Get them, but don't show them to your sweetheart. Fun Card Company, Dept. 1344 Jordan, Decatur, Ill.

VALUABLE EXPERIENCE.

Editor RURAL WORLD: The year of 1913 has passed by and gone, and every one that is engaged in the poultry business, whether for pleasure or profit, can look back over the last year's record and ascertain their gains and loss and enjoy an untold amount of valuable experience. Let us double our determination for this year's work in the business. We want more thoroughbred poultry and a greater supply of eggs. If we desire to accomplish the things mentioned above we must start to-day and not put it off for to-morrow, for to-morrow is just one day ahead of us.

If we would have more thoroughbred poultry we must cull our pens closer; let us see how near to the standard requirements we can get them. Above all things reform from the horrible work of inbreeding. I know a breeder that tried in-breeding and the results proved most disastrous.

He obtained a fairly good hatch from the eggs he incubated, but the baby chicks were unspeakably weak, and the continual removing of dead chicks from his brooder reduced his number greatly. Those that he succeeded in raising suffered many deformities; some possessed crooked legs and toes, while others were stone blind and seemed to be of a wild and frightful disposition.

We should use males in our breeding pens that are not related to our hens; if we keep some of the pullets to increase our number of breeding hens for another year, we should dispose of this male bird and place another in the pens that are not relative to hens or pullets.

Some one will say: What about line breeding?

Line breeding is all right if carried out correctly. It is practiced by some of the best breeders of the country. But my advice to those who have never had any experience in this particular line of poultry breeding is not to attempt line breeding until you have had some special instructions, charts and full details regarding the work.

We want more marketable eggs. How shall we get them? The things that will greatly aid us in this effort are: First, let us cull out the best layers from the drones, and use the good laying hens in our breeding and laying pens. Next let us incubate a large number of eggs early—say February and March—for the purpose of having plenty of well developed pullets to put in our laying pens in the fall when the hens go into their winter quarters.

The providing of good warm houses, scratch pens and sheds—but well ventilated—will help to fill the egg basket.

The reading up of up-to-date poultry journals and books will give you much timely information on the latest methods of feeding for eggs.

Kentucky. RICHARD E. WINGO.

CAREFUL FEEDING PAYS.

From a careful investigation we find that our common cows are capable of producing a much larger yield than is secured from the average common cow in the state. During the past decade we have always had at University Farm, in the dairy herd, a number of common cows; that is, cows with no dairy heredity. The average yield from these common cows, for 23 yearly records, is 5,000 pounds of milk and 222 pounds of butter; which last, valued at 27 cents per pound, is equal in round numbers to \$60, for butter alone. The average receipt per common cow in the state is \$46.40; which shows that the average cow is yielding \$14 less per annum than she might easily yield if given the same care and feed as are given the cows at University Farm.

Write to the Division of Dairy and Animal Husbandry, University Farm, St. Paul, for their booklet on Feeding Dairy Cows.—T. L. Haecker, Dairy and Animal Husbandman, University Farm, St. Paul.

Horseman

New England has but one meeting in the Grand Circuit this year, that at Hartford.

Mr. Ramsey Macey will train the pacer Twinkling Dan 2:06 1/4, by Dan Patch 1:55 1/4, the coming year.

Grace Hussey 2:15, raced over the half-mile tracks of Ohio last year, and will be raced in the Grand Circuit the coming season.

The Big White Fair will be held at Darlington, Wis., the four days beginning August 25th. Thomas Kirman is secretary.

S. B. McCord of Paris, Ill., recently sent the trotting mare Red June 2:29 1/4, by Red Medium, to J. B. Chandler of Indianapolis.

September 23d to 25th are the dates selected by the Jefferson County Agricultural Society, of Smithfield, O., as the dates for their annual fair.

September 28th to October 2d are the dates set for the Wood County Fair, Wood County, Ind. R. S. Sweet has been elected secretary for the coming year.

It seems to be the general opinion of trainers and drivers that the change of the M. & M. to the 2:14 class will be productive of a better entry list and improved contests.

Para Belle 2:16 1/4, owned by W. J. Thubron, of Pittsburgh, Pa., will be entered in the early closing trotting events the coming season. This mare showed a mile in 2:10 last season.

La Tourette and Anderson, of Cleveland, Okla., announce an early arrival for 1914 in a colt foaled January 9th. The new comer is by Baron Ito, dam by Charles Wilkurst, 2:16 1/4.

Mount Pleasant, Iowa, claims the four days beginning August 18th, for their fair and race meeting this year. Mt. Pleasant meetings in the past have been successful under the management of Secretary C. H. Tribby.

There is no discount on the staying qualities of Geo. Gano. This is his tenth season of active training and racing, and he recently set a new ice record at Minneapolis, placing it at 1:02 1/2, bringing it down from 1:02.

A series of ice races every Tuesday during the season have been arranged for the Round Lake Matinee Club. A specially laid out track at Round Lake, near Ballston Spa, N. Y., has been completed and good stables provided.

The name of the Clarke County Fair, Vancouver, Wash., has been changed to the Columbia River Interstate Fair. Geo. P. Larsen, who was secretary in 1912, was again elected secretary for 1914. Some good racing is assured for the coming season.

The old mile track at Fort Wayne, Ind., was recently cut up into town lots and sold, but a new association has been formed, headed by L. D. Burnett, and has leased Contlyre Park on the site of the old Spy Run Stock Farm, and meetings will be held here.

Lelia Patchen 2 3/4, has been purchased by a New York state man and it is the report that she will be raced in the Grand Circuit this year. She paced in 2:07 on a mile track last year. She is by Dan's Brother, a brother to Dan Patch and out of a mare by Indianapolis Jr.

The hay that is fed to horses should be clean, wholesome and absolutely free from dust. Handfuls should be carefully shaken, and only the best and sweetest used. If the horse fan-

cies a little clover or alfalfa he should have it by all means, as it will encourage the appetite, but prime timothy should be the standby, and if a little moistened salt is sprinkled over this it will be all the better liked. Needless to say, needless to say, only the purest and cleanest water should be supplied. Fairly warm, well aired, dry, clean, well-lighted stables must make a harmonious accompaniment to the directions for feeding given above. It is well to bear in mind that feed and breed make the horse, but only feed and care will cure his ills and diseases.

USEFUL TO HORSEMAN.

Editor RURAL WORLD: I have a horse that developed a bone spavin and became very lame in winter and when used on rough roads. I tried a number of guaranteed cures without success. A liveryman gave me the following recipe, which cured it completely, and the horse has not been lame for a year or more.

For the benefit of horses in general and horse owners in particular I send the recipe for publication:

CURE FOR BONE SPAVIN.

One-half ounce oil of spike, one-half ounce oil of cedar, one-half ounce oil of camphor, one-half ounce oil of alcohol, one-half ounce oil of harts-horn, one-half pint spirits of turpentine.

Apply once daily, rubbing it thoroughly with the hand for five or ten minutes.

C. A. BIRD.

Missouri.

PARIS, ILL., NOTES.

Bruce Watts has purchased of John Montgomery a black stallion by Paris W. that went wrong last year before being started, but he is going sound now, and will make a short season in the stud and will be raced later in the slow classes. It is thought that when in condition he can pace three heats in 2:15. Bruce is working five others.

E. E. Alexander is the owner of a three-year-old bay stallion by Cup-bearer, 2:18, that worked a mile last year in his two-year-old form in 2:35, half in 1:16, that has the marks of a great trotter. His dam is by Kellar, a son of Allerton.

The Indian, 2:16 1/4, owned by Stewart Bros., was a good money winner last year in the Illinois Valley Circuit.

Bernie Younger has charge of the Ogden O'Hair string and is exercising the bay stallion Smith Waible, p., 2:12 1/4; Baron O'Hair, 2:29, by Baron Review; Josie Review, a great trotting prospect, that could brush a quarter last year in her two-year-old form in 36 seconds.

Dr. Crabtree has a four-year-old stallion by Baronmore, dam by Chimes; a two-year-old stud, by J. Malcolm Forbes, and some fillies that are well bred.

MISSOURI HORSES SUCCESSFUL AT DENVER SHOW.

The Missouri exhibitors at the horse show held in connection with the Western Live Stock Exposition at Denver were most highly successful.

In the gaited saddle classes, Tom Bass of Mexico, Mo., won the entire program. With Cason McDonald he won the championship and stallion classes. His Jack Dare was the winner of the gelding class and was second to Cason McDonald in the championship class. Belle Beach and Fashion Denmark won first and second respectively in the high school classes.

O. J. Mooers of Columbia, Mo., and John R. Thomas of Chicago, were the leading exhibitors in the harness classes, the Missourian winning the champion class for high-steppers with The Spring Maid from the Chicago owner's Pride o' Prides. Mr. Mooers also won the runabout classes. Mr. Thompson won the classes for pairs and tandems. In number the honors were fairly well divided between these stables. Dr. Sherman Williams, the well-known and popular Denverite, was the runner-up in all the heavy

harness classes and his three-gaited, Missouri-bred mare, The Tango Princess, was successful in seven of her eight shows, missing out only in the championship, Mr. Mooers' Princess Charming getting the verdict over the locally owned mare in the big show after taking second to her in the class for ladies' saddle horses and the combined class. Dr. Williams' Million Dollar Doll was another of his entrants that had much consideration in the gaited and high school classes and attracted much attention.

Eddie White, in charge of Mr. Thompson's horses, showed Sallie McDonald, that good daughter of Grand McDonald, in the three-gaited classes, and was well up in all her shows. Mr. White has been an exhibitor at many of the Denver shows and is one of the most popular of the many horsemen that make the annual pilgrimage to the metropolis of the Rockies, and it may be said that his connection with the Thompson stable had much to do with the applause that always came from the throngs in attendance as the Thompson entrants made their appearance in the arena.

The show was the most successful ever held in Denver.

REGISTER ASSOCIATION MEETING.

The annual meeting of the American Trotting Register Association was held at the office of the association on Wednesday, Feb. 4, President Wm. Russell Allen in the chair. The credentials committee reported 741 shares represented in person, or by proxy, as against 662 last year. The treasurer's statement showed that the loss on the Year Book had reduced the surplus of the association from \$9,829 to \$4,546. As the annual dividend calls for \$5,556 the board of directors omitted or passed it for the year, although there should be no difficulty in meeting it another year. The two largest items of expense were, \$8,119.40, and printing, \$9,723.45.

THE FIRST SIDE-SADDLE—SIDE-SADDLE DEFECTS.

According to Knighton, the historian, the first side-saddle was introduced into England by Anne of Supembourg, Richard II's queen. So far back as 1341 it was in general use for ladies at tournaments and in public. There are still specimens of the early side-saddle and pillion (which was for carrying husband and wife with produce to the nearest market center). These may be seen at the various museums.

The leaping head was the outcome of a wager between a saddler named Oldacre or Oldaker and a friend. The conditions of the bet was that they were "to ride a steeplechase, catch weights, on ladies' saddle," and Mr. Oldacre, dubious of his ability to keep his seat, conceived the idea of the leaping head and by its aid was first past the post. Anyone who has tried riding on one of these old-fashioned saddles with no crutch for the left knee will realize what a debt of gratitude all riding and especially hunting women owe to Mr. Oldacre.

A further disadvantage is the additional weight the horse must carry. Putting aside the extra seven or eight pounds of the saddle itself, the rider must inevitably ride heavier when seated sideways than when the weight is evenly distributed as in the cross-saddle. It is impossible on a side-saddle to ease a horse in heavy going by rising in the stirrups. Many women find the sideways position very trying to the back, and generally tiring and conducive to cramp; there are yet others who declare it to be the acme of comfort and security. Probably it depends upon having a strong back.

The number of astride riders is constantly growing. Princess Mary's fondness for horse exercise will be sure to have a large influence upon the pastime, and if medical inquiry discloses no adequate objection to the use of the cross-saddle, our friend the gee-gee will have many a pleasant

FOR SALE

REGISTERED COACH STALLION.
At a bargain. See "classified ad" department on back page of this paper.
RAY RODGERS, Bowling Green, Mo.

run. Hunting is still a popular sport, and the cross-saddle has eliminated a fruitful source of discomfort both to horse and rider.—Harness.

INCREASE IN PRICES.

In the year 1895 there were nearly sixteen millions of horses in the United States, and the farm price was on the average \$36.29. In 1896 the number had fallen off 769,000, or had lessened over three-quarters of a million in one year, and the farm price had fallen to \$33.07 per head. In 1897 the number of horses had fallen to 14,365,000 and the farm price to \$31.51. Since 1897, the price has continued to rise slowly every year up to January 1, 1913, when the number of horses in the United States was 20,567,000 and the farm price was \$110.77 per head.

The low price of horses in the United States had attracted English buyers, and in the two years of 1901 and 1902, the number of horses exported was 185,270 and the average price per head \$102.7.

TOM DENNISON'S PHILOSOPHY.

(Arthur Bennett in the Denver Post) Wandering through the crowd, I happened to meet up with Tom Dennison of Omaha, a millionaire and man of affairs, but who evidently has the philosophy of life whittled to a fine point. Tom Dennison is happier sitting on a feed box and watching a good horse being groomed than possibly would be in the palaces of a king or the seats of the mighty.

"Some of my rich friends down Omaha way," said he, "have built \$40,000 houses and, of course, have everything that goes with that kind of display—everything except a good horse. Now, I live in a \$5,000 house and I have just as much fun as my friend in the marble mansion, and I ride my horses myself and watch the boys fool around with them, and I think it keeps one young, less liable to envy, hatred and malice than anything I know of."

"I always have found that the simplest and perhaps the least expensive pleasures were the best after all."

THE HORSE IN BASEBALL.

The funniest thing that I ever saw on the ball field, said Albert Leifeld, the famous pitcher, happened before I went into the major league, when, as a member of the Pueblo Club, I was breaking into the big circuit by the way of the Western League.

Des Moines was playing in Pueblo against our club. Bob Ganley was in the game, while the president of the club was Joe Cantillon, who for so long a time has been a familiar figure in baseball.

Ganley got into some trouble that day with Harry Moll, the umpire, who was a funny old cuss, with whom players always had a lot of sport. Ganley kept it up so long that Moll finally put him out of the game, whereupon Cantillon came down on the field to help make it hot for the umpire.

Moll stood it for awhile and then called for a police officer, who finally appeared on the scene riding horseback. Ganley and Cantillon would not move at the officer's order, and so he began to back them off the field.

He had a fine horse and one that was mighty well trained. The horse would back up against Ganley and then against Cantillon, and when the officer used his spurs the animal would give a little lurch, which made the warlike contenders jump away in a hurry.

Step by step they had to retreat, all the time keeping up their argument with Moll, who stood laughing at them. The crowd and the players all joined in the fun, and gave the officer a great cheer as he finally backed Ganley and Cantillon off the diamond. And the horse seemed to enjoy it as much as any one.—Exchange.

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INSURANCE MATTERS.

By C. D. Lyon.

Friend Old Subscriber, you certainly read me wrong on the subject of mutual insurance companies. Without going to the bank to look at my policies, I think that I am carrying a little over \$3,000 fire insurance in an old-line company and am paying just a little over \$10 per year in premiums. If I were to meet with a total loss, in ten days I would have the full sum of the policies in the bank.

A friend has \$2,800 in a mutual company, and tells me that last year he paid \$4.80, or, in other words, he got his insurance for about \$5 less than I did. If he was to meet with a total loss, it would probably be sixty days before he would get his money; and that is all the difference there would be.

I favor mutual insurance so strongly that, when at my sons' in Jackson County, Missouri, I got them in touch with the mutual agent there and insisted that they insure to the last dollar with him.

We got into the old-line companies forty years ago; have had a few small losses, all promptly paid. The agent is a very intimate friend, and I stay with him, but it is costing me \$5 to \$7 per year.

As to fraternal life insurance companies or orders, I had an unpleasant knowledge of one. When I married, wife's father was a member of one of the oldest of these societies, carrying \$2,000. He offered to pay my initiation fee and a year's charges in full, but I was afraid of the society, as it only cost \$10 per year per \$1,000, and as I did not join I had the old gentleman's disfavor for a long time. Well, he lived to see the \$10 go to \$20, the \$20 to \$40, the \$40 to \$80, then \$100 per year, and two or three years prior to his death he dropped the matter, loser to the amount of more than \$1,800.

At the same time, such orders, as managed now, are on a much better basis, although one of the largest of them is having trouble over a raise in rates. If I was back to the age of 25-30 years, I would go into one of these orders, pay my assessments as long as they were within reason, then drop it. I would be getting my insurance cheaper than the piratical old-line companies would give it, and I look on old-line life companies just as Old Subscriber does.

When I look at and admire the architecture of a thirty-five-story life insurance company building, my admiration changes to contempt and pity as I recall the fact that it was built by drops of sweat wrung from widows, orphans and their protectors.

Less than 60 cents on the dollar paid into those companies ever goes back to those who paid it.

The other day a preacher told me that he was going to quit preaching and sell life insurance. My reply was: "The church is well rid of you, and all like you, as such men in the church is what goes to make atheists."

SOUTHEASTERN KANSAS NOTES.

Editor RURAL WORLD: A few lines from this section may be of interest to some of the RURAL WORLD readers; at least I judge others by myself. Our winter up to the 6th of February has been remarkably mild, and we can't help but feel we have been highly favored by a kind Providence, as feed of all kinds was cut short by the great drouth of last summer, but with the favorable fall for the late pasture and the fine growth of the wheat, stock of all kinds are getting along beyond expectation. On the 6th and 7th of February we had our first real winter weather, with some snow; the mercury got down to zero, but at this writing it has moderated and is nice now again. Fruit buds are all right yet, but many orchards have suf-

fered much by the drouth and many trees died.

Chickens, where they were well fed and cared for, made some money, but many flocks, on account of the scarcity of grain and high-priced feed, did not pay their board. L. WOLFE.

NEW MEXICO LAND CHEAP.

Editor RURAL WORLD: Any one wishing to secure a good cheap home, could not do better than to visit the Estancia Valley in central New Mexico. Land can be bought very cheaply there at the present time, owing to the drouth and other causes, one of which is the fact that very nearly if not fully one-half of the land was taken up by speculators who quit the valley just as soon as they got a title to the land; then there were a great number of settlers who were not forehanded enough to meet a drouth and they had to quit.

It is no uncommon thing for the farmers to raise 100 bushels of potatoes per acre, that sell at from \$50 to \$70 dollars per acre; and it is no more trouble to raise as many acres of potatoes as of corn.

One of the best locations would be in the vicinity of McIntosh, on the New Mexican Central railroad.

And my observation leads me to believe that there is a greater rainfall on the east side of the high points of the mountains than elsewhere in the valley, and I believe this to be true elsewhere in the West.

They can raise anything there that they can raise in the north Mississippi Valley States.

And no doubt it is a fine fruit country, from the fact that the old Manzano (apple) orchard, planted some 300 or more years ago, is still bearing fruit—not the highly developed fruit of our time, but the old seedling variety of the long ago, small in size and sweet.

Besides, the farmers know now what crops are best suited to the valley, and that they did not know when the valley was first settled. The farmers are the ones to go to for information; they will tell you the truth.

There is a bright outlook for a good crop next summer, for there is a season in the ground.

GEORGE H. OWEN.

STAND BY YOUR CONVICTIONS.

Editor RURAL WORLD: After reading "Ring in the New," by C. D. Lyon, I contend our public schools will continue to fall short of their missions so long as school boards employ teachers in their teens. Why employ youngsters to instruct our boys and girls when we know older heads have more influence and naturally control children to a far better advantage? So long as patrons remain inactive and indifferent toward our schools, so long will there be a lack of co-operation, also a lack of pride, while the teacher may try even so hard to give value for money received.

Good morals are always essential in connection with book knowledge. Therefore patrons and school boards alike should always encourage ethics in the home and insist that same be thoroughly taught the pupils by their teachers.

I fear our schools attempt too much.

Why not devote more time or rather give thorough drills in reading, spelling, writing, language, vocal music, drawing, nature study, physical culture, and good morals?

With well equipped buildings, compulsory attendance and county school supervision, we were told our schools would do wonders; but, nay, not so.

Now our wise men tell us we need consolidated schools. Wonder what next?

Perhaps the next wonder will be a law enacted giving county boards (superintendents) of education power to employ teachers.

At least, resolutions to that effect were recorded by the teachers in my county at their meeting held some months ago.

Four or five districts uniting as one

may solve the school problem, but I am in grave doubt about this movement, and since we are trying the plan in our county I say wait till

counterfeits. Send \$1 bill and you will receive by parcel post *Beautiola* and *Beauty Cream*, with full particulars. THE BEAUTIOLA CO., Dept. C., *Beautiola Bldg.*, St. Louis, U. S. A.

FARMERS EQUITY UNION COAL

Blackbrier—Highgrade
Cantine—Semi-Highgrade

From our Illinois mines—Now used by many branches of the Farmers' Equity Union in the different States.

Reference: Mr. C. O. Drayton, National President Farmers' Equity Union. For prices, freight rates and any desired information, write to us.

LUMAGHI COAL COMPANY
606 Equitable Building, St. Louis, Mo.

SHIPMENTS ANYWHERE.

same has been given a test and in due time we hope to note all that tends toward real progress.

I think the chief aim should be a change, to the end that education shall be more closely connected with the real life. Will a change from the old to the new prepare our boys and girls for serviceable, profitable, useful and contented lives in their community?

I would not have the readers of the RURAL WORLD think for a moment that I am opposed to progress, but I am opposed to misrepresentation or unfair means, when men seemingly lose sight of honesty and integrity in order to win.

If any reader cares to comment or criticise this letter, now is the proper time to act, for I am ever ready with tongue or pen to defend my honest convictions.

L. E. VARNER.

KENTUCKY NOTES.

By Mrs. J. T. Mardis.

At last we had two days of pretty cold weather; it moderated, though, and again is trying to snow and is dreary looking. I like to see snow during winter time. I would rather see it now than in early spring when it is not wanted. Our renter has put his crop of tobacco on the market at last; the market is not as good now as it was two weeks ago. Our own—what our boys and girls raised at home—is still not quite ready to haul away. Perhaps we can finish it up this week. We expect to turn our tobacco money into more dairy cows as soon as the grass comes on. Our renter leaves us the first of March to go to his own little farm, and we wish him much good luck and prosperity, as he proved a very faithful party. One cannot get a man like him every day. At any rate, it is nice to be able to quit friends. This man tended our farm two years.

We are now looking for another man. When my husband died he fully expected me to sell the old home place and I have thought about it a good deal. The land is now the best farm land there is around for miles, but it lays off the road and I could hardly get what it is worth on account of that, and, of course the old place seems yet so dear to me on account of old associations, so I have never had my own mind's consent to sell it. Sometimes I think I ought to sell it as it is quite a distance from our present home, and it makes it hard on the boys to go way down there to tend to the work there. Still, I am not losing anything by keeping it as it brings me returns every year.

And, sometimes, some of our family might go back to it. It has a nice large well built barn on it and is well located for a good stock farm. Quite a nice lot of stock can be raised on it. We have a nice lot of good wire fence put up and will stock it a little more this season. A farm like that

can be made to yield a good income without plowing much land.

There is a creek running through it and some nice bottom land that is easy to tend.

I could sell it easy, in parts, to my neighbors. The hill land in sweet

clover for stock grazing, and the bottom land for corn, gives good satisfaction.

There is a well-established alfalfa field and a locust field. Surely when a person has something that's worth having they ought not to sell. That's the way I usually feel when considering the matter. The only thing that would ever make me sell the place is if someone could appreciate it to pay what it is really worth, regardless of it being off the road. Just four years ago we sold \$1,000 worth of horses off of that place in one year. Of course these horses and mules were not made ready to sell in one season, still the fact that we had that much to sell in one year was worth while.

The month of January has been a very nice mild winter month with us. We did have a little cold spell right after Christmas, the snow staying on for two weeks, but later had nearly spring weather. Today, however, we are having a change, a raw cold wind is going all day and it is snowing. Last evening we had our trees all iced, but the ice melted away during the night.

One of the boys has gone to the depot, shipping some sweet clover seed, though the day is very rough and cold out. However, we have the foot heater and a covered wagon, so the roughest can be dodged to some extent. Though when the open jolt wagon is used it is not near so nice.

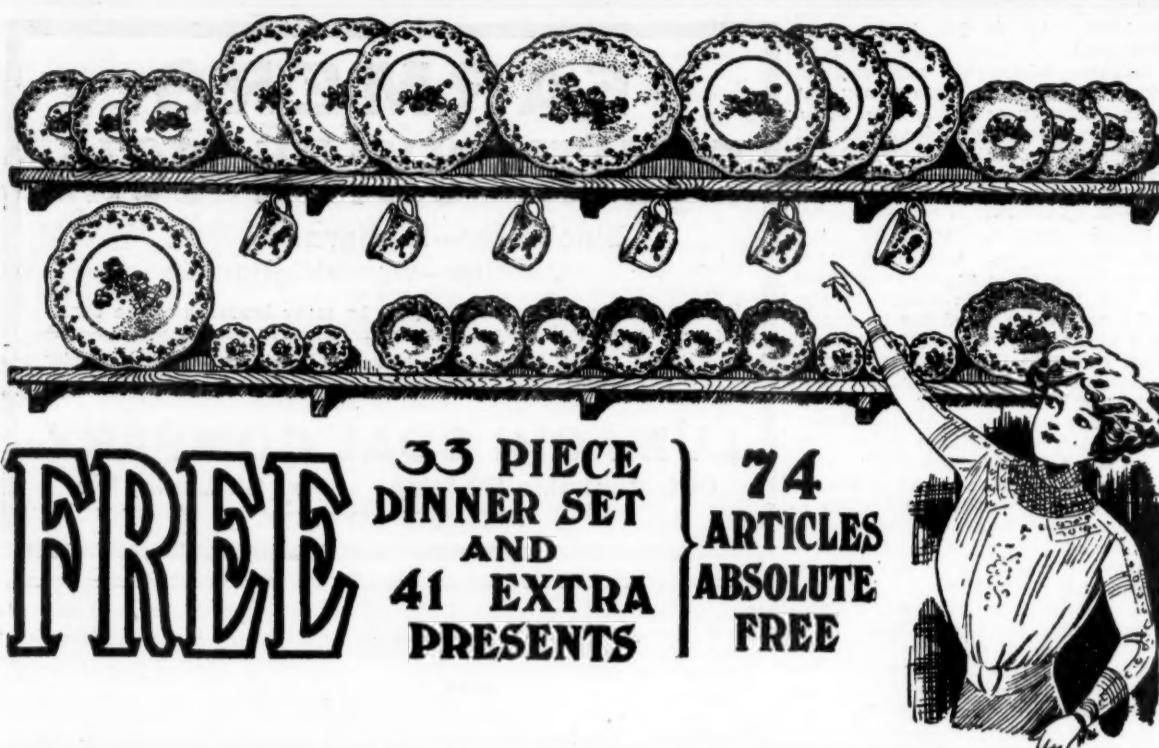
Prices of cream have dropped from 37½c to 31½c. Still our cream check was a nice one.

Diversified farming pays, friends. We aim to have horses, sometimes mules, cattle, hogs, sheep, chickens and turkeys. Though just now I am out of turkeys. Am thinking of trying Bourbon Reds. We always had nice Bronze turkeys. Our neighbors and most too close for turkey raising.

Just received a letter from a customer of ours from Arkansas. This friend bought seed of us two years ago. He sowed the seed, but because of dryness it did not do any good. He states: "Fortunately, I did not sow it all, and I sowed it last year. It came up nice and I had a nice stand. My stock, horses and cattle seemed to relish it. I am so well pleased with it that I intend finally to set my whole farm to sweet clover."

Friends, that will be a good move for him, as it is the plant for the stockman, and we know it. Brother farmers, do likewise, and grow more stock on the same number of acres. By which I mean that the same number of acres you now have will raise more stock when these acres are growing sweet clover than they would on other grass. These are facts, proven every day now. It is still a good time to sow sweet clover. Get ready to sow sweet clover with your spring oats, or sow on your fall sown wheat. Sow any time from now till May 1. Sow it for pasture, sow it for turning under as a green manure, sow it to keep your land from washing away, sow it to keep up farm fertility. Yours for better farming with sweet clover.

Joy and prosperity to all.
Falmouth, Ky. R. 4.



FREE

33 PIECE
DINNER SET
AND
41 EXTRA
PRESENTS

74
ARTICLES
ABSOLUTE
FREE

Positively the most liberal and biggest dish offer ever made. No home has enough dishes—good dishes. This is a wonderful collection of presents. We can only show the beautiful dishes—the rest of the presents we haven't room to show—but a full description and picture of them will be sent you the minute you send us your name. **ALL ARE ABSOLUTELY FREE** to introduce our business in your locality. All that is required is a few minutes of your spare time. Read below carefully, and send the coupon and I will do the rest.

Description of Dishes

Our magnificent 33-piece dinner set is the product of one of the finest and largest potteries in the world, the old rose and gold leaf design having become famous in aristocratic homes.

They are full size for family use, and the set consists of:

- 6 large plates.
- 6 teacups.
- 6 saucers.
- 6 butter plates.
- 6 fruit or cereal dishes.
- 1 deep vegetable dish.
- 1 large meat platter.
- 1 large cake or bread plate.

In the center of each piece there is a cluster of roses depicted in their natural colors and surrounded by brilliant green foliage so that almost the only thing missing is the fragrance.

The edge of each piece is enriched with a gold border which adds greatly to the beauty of the dishes. The ware itself is pure white, and is dainty enough to delight the most fastidious housekeeper.

Each dish bears the genuine stamp and TRADE MARK of the great world-renowned Owen China Company of Minerva, Ohio. This stamp guarantees the high superior quality of this set of dishes, guarantees them absolutely. It proves to you that this is the real Owen chinaware.

Easy to Secure All

If you want our 33-piece dinner set, and the 41 other presents, simply sign your name on the coupon below, and return it to us promptly and we will send you a **LARGE ILLUSTRATION IN COLORS**, showing this beautiful Dinner Set with its handsome decorations of red, green and gold against the pure white background of the ware itself.

We will also send you **SIXTEEN** of our **BIG NEEDLE CASES**—115 best grade, big eye, extra quality steel needles of all sizes in each needle case.

If you will show these Needle Cases to sixteen of your lady friends and ask them for 25 cents each **IN CONNECTION** with another special offer, which we will tell you about in our first letter, we will send you, by freight, this handsome 33-piece Rose and Gold Decorated Dinner Set, **ABSOLUTELY FREE, AS A PRIZE**, and in addition the 40 post cards and a beautiful extra surprise gift for being prompt.

Just write your name and address on the coupon and mail it to us and the 16 needle cases, the pretty many-colored picture of the dishes and full instructions for getting them will come right out to you in a jiffy. Send no money—just your name. We trust you with the sixteen needle cases—if you can't dispose of them, we will send postage for their return. Don't wait until these dinner sets are all gone. Send in the coupon now.

41 Extra Pres- ents Free

The dishes are not all you get by any means.

Our plan is full of **SURPRISES** and **DELIGHTS** for those of our friends who are willing to lend a helping hand at spare times.

The very first letter you get from us will surprise you before you open it. It will also delight you by telling all about the big 40 post cards collection which we want to give you in addition to the dishes. These beautiful post cards are so rare and attractive and printed in such a gorgeous array of colors that you will be delightfully surprised.

And still, **THAT** is not all. One of the prettiest surprises of all is kept a secret until the day you get the dishes and find a pretty present that you knew nothing about.

Isn't this a fascinating idea?

And what makes it more so is that we have something nice for everyone of your friends and neighbors, too. We'll tell you **ALL** about it as soon as we receive the coupon with your name on it.

The coupon starts the whole thing.

Send This Coupon NO MONEY

Colman's Rural World,
718 Lucas Ave., St. Louis, Mo.
Please send me, postpaid, the sixteen Big Needle Cases of best grade needles, together with Large Illustration, in colors, of the beautiful 33-piece dinner set and tell me all about the other gifts.

My Name.....

Full Address.....

From the Producer To the Consumer

Farmers Will Force Cheaper Produce on St. Louis Market in the Near Future.

The St. Louis County Farm and Market Bureau has purchased property on Laclede avenue and Sarah street, St. Louis, on which it is proposed to erect a large market which will accommodate 450 wagon stalls for members of this organization, who will sell their produce direct to the consumer.

The farmers of St. Louis County have come to the conclusion that they must do something for themselves, and this determination has had its inception in the country-wide movement of the farmers to get together and co-operate. The Agricultural Department has published many valuable articles on the necessity for organization and co-operation among farmers, but the department can do no more than advise the best methods to adopt. The farmers themselves must do the rest. Everywhere now the spirit of organization and co-operation seems to have taken hold of the farming communities, and the practical demonstration of the St. Louis County farmers in establishing a market where they can deal directly with the consumer is the logical result of education along the lines of co-operation.

There are 1000 truck and produce farmers in the St. Louis district. Between 600 and 700 are members of the organization. St. Louis County is said to have about 3500 farmers, and it will thus be seen the great opportunities of the farm and market bureau where they can get in direct touch with the consumer. It will also be of great benefit to the consumer to be enabled to cut out the middleman and by the use of the market basket make the high cost of living a thing of the past.

THE GET-TOGETHER AGE.

Editor RURAL WORLD: We of the world who are producers are producing for the consumer, and we must needs take care that we get our produce to the consumer as directly as possible. We are all consumers, and we from the consumers' standpoint must get our produce direct from the producer.

We well know it is an established fact that producers of like production must get together so they can get their production to consumers in a systematic manner, or rather in a business way.

The farmer is a little behind most producers in organization, but is in position to use organization better than any other class.

The consumer is also looking to the former for his needs more than to any other class.

Farmers organize at your point and get your hams direct to the consumer. Don't miss the corn and the pigs and feed the corn and fatten your hogs and sell to a hog-buyer at home or the central markets to be placed in the hands of the packing trusts at such a high figure that the consumer can only eat meat once or twice a week.

If you live in the wheat belt do likewise with your wheat—have it milled into wheat flour ship stuff, etc.

As Secretary Houston says: "From what the Market Department at Washington has learned in the last eleven months farmers must organize, standardize and advertise."

COLMAN'S RURAL WORLD, oldest agricultural paper in the Mississippi Valley and founded by Norman J. Colman, who did so much to get our agricultural department started away back in Cleveland's time, and now as we have the market department of agriculture it is still open to advance the great needs of the American farmer.

Farmers, do you know of any agri-

cultural paper that is open for this move as is the RURAL WORLD? Too many agricultural papers are afraid. It will hurt some of their advertisements. That is, they stand for money from advertisements instead of the farmers.

Let us lend a hand to a paper that has stood as the RURAL WORLD has stood. It is a good paper to get together through.

It will be the aim of this page from now on to aid farmers to get together more and more. That is, it don't make any difference what union you may belong, if the RURAL WORLD can put you in touch with any other point where they are organized it has fulfilled its mission, not to say that it will aid any organized band of farmers get in connection with organized consumers if they will do business on the old Rochdale plan, this is, pay interest, dividends, etc., on patronage instead of \$ (dollars).

To those who are interested I will cut out a clipping from the Literary Digest which will give you a small idea of co-operation by organization in Denmark.

This Denmark article was first written for the Metropolitan Magazine.

VIRGIL I. WIRT.

FARMERS WHO KNOW HOW.

(From the Literary Digest.)

While breaking the end of a boiled egg in a London restaurant Frederick C. Howe chanced upon a clue to a story that seems to reveal the secret of agricultural progress for our American farmers as a class and point the way to a solution of the serious problem of food production. Mr. Howe saw some mysterious letters stamped on the egg, and asked the head waiter to explain their meaning. The waiter said the egg came from Denmark, and the stamp was a guaranty of freshness.

"England, you know," he added, "buys her eggs, butter, and bacon from Denmark. The English people use their land for hunting, sir." The waiter told Mr. Howe of the struggle of the Danish farmers against poor soil, bad weather, and many other difficulties, and explained that by using the best methods of soil cultivation, dairying, and poultry-raising, and by selling their products and buying supplies through co-operative societies, they achieved prosperity for themselves and reduced poverty to the minimum in the towns and cities. The prospect of finding a good story to bring back to America looked favorable to Mr. Howe, and he immediately set out to dig up the facts. What he discovered is contained in an article in the Metropolitan Magazine, from which we quote in part:

I went down into the heart of old London, down into the crooked streets near the Bank of England, through which the uttermost corners of the earth pulsate, and finally found the offices of the Danish Export Society. The head waiter had told me all about it, too. I found that his story was correct. The office was not unlike a thousand other offices, only it was run for the farmers of Denmark. It was the London agency of the co-operative society through which millions in Danish farm produce are distributed to Great Britain every year. A private company had previously had the contract, but it became a monopoly. Then it cut down the prices it paid the Danes for their bacon and raised the prices to consumers in England. This was bad for the farmers; it was bad for their reputation. So the farmers got together and organized a co-operative export company to sell their own produce to their own customers. By so doing they kept the profits to themselves. They also protected their trade-mark by insuring goods that were up to the standard.

There is little tenacity in Denmark; far less than in the United States. Over 89 per cent of the farmers own their own farms. About 11 per cent are in the hands of tenants. This is one explanation of the well-being of the country. This is one reason why the Danes are such good farmers. They work for themselves and have no fear of having their rent increased when they improve their consumer.

farms as they do in England, in Belgium, and, unfortunately, to an increasing extent in America as well.

Denmark, I learned, was not unlike the other countries of Europe a generation ago. The farmers were ignorant and poor. When Germany took Schleswig-Holstein, the choicest part of the country, in 1864, the patriotism of the people was awakened. They saw that they must make the most of their little country. The change began with a new system of education, from which we might learn much in America. It was designed to stimulate interest in agriculture and things that people use in their daily lives. The school is a mirror of life and is planned as such. I attended one of the high schools, which are unlike any school I have ever seen. The courses are of five months' duration, and the boys and men attend in the winter, and the girls in the summer. The students are of all ages. There are no examinations and no textbooks, and there is no uniformity in the courses offered. But I found the most wonderful enthusiasm. Nobody watched the clock. Work continued all day and even into the evening. Danish literature was taught, as were bookkeeping and business.

In consequence of their quality Danish eggs bring fancy prices. They are better packed than any others and are carefully graded. But these means the Danish farmer has increased the price of his eggs just as he has more than doubled the price of his butter by the same careful attention to details.

When the co-operative movement started the excess of eggs exported over those imported amounted to \$2,000,000. By 1909 it had increased to \$7,000,000 a year. During the same period the number of fowls increased from 5,900,000 to 11,800,000.

We are taught to believe that efficiency can only be secured by monopoly. It is assumed that any co-operative control of industry must be wasteful. Yet the million and a half of Denmark disprove this. On their own initiative they have organized themselves into every kind of co-operative business, to carry on transactions which run into the millions of dollars every year. They do it with the economy and efficiency of the most highly organized private business. And they do it through co-operation, and not through Socialism. They buy what they need at wholesale and they sell to themselves at retail the same way. Thus the farmer gets all that he makes. He has got rid of one middleman after another, and deals almost as directly with his customers as did his ancestors a hundred years ago at the village fair.

I found co-operation everywhere. The movement is only 30 years old, but in that time Denmark has been changed from a barren country, in which the peasants were not different from those of Germany, into the world's agricultural experiment station. Little by little I learned the story that makes poverty seem a crime in a country with the resources of our own; a story that suggests a vision of the unfathomed possibilities and talents of the ordinary man. Further than this, it shows how easily poverty can be cured by law rather than by charity, and this is the big thing this little country teaches to all the world.

Denmark, I learned, is a free trade country. The peasants are free traders. They want to buy wherever they can buy the cheapest and are willing themselves to submit to the competition of other lands. There are no cost-of-living investigations in Denmark and no monopolies. Nor fortunes. I found that the government owned the railroads and operated them for the peasants. Freight rates are adjusted to encourage the export trade and for the special benefit of the farmers.

Poverty is said to be a crime, but with farmers standing together and co-operating there will be no cause for complaints about the high cost of living. Co-operation spells success no less for the farmer than for the consumer.

DUNKLIN COUNTY (MO.) NOTES.

Editor RURAL WORLD: Last summer people were scared on account of the drought. But when we came to harvest our crop, we got more than we expected. Over most of the county corn was about 25 per cent better than was expected. In 1912 this county made about 27,000 bales of cotton. Last summer we thought we would make less. But there was right around 30,000 bales. We usually grow lots of pea hay, but last year the crop was very light. Timothy and clover is now \$20 to \$25 per ton. Corn is 65 to 75 cents, and all stock is high. We had a fine season for growing and gathering our crops. We grew and gathered our crops at less expense than usual. The winter has been very mild and comparatively dry, and farmers have made fences, built houses and barns, cleared, dug ditches, hauled bolts, sawlogs, and done other work. So our country is prosperous. It is improving rapidly. The great Little River drainage ditch, on the east of us, is already begun. It is 90 miles long, drains half a million acres, and will cost \$4,500,000 to dig it, and will take five years to complete it. It will be dug by dredgeboats operated by electricity, generated at Cape Girardeau.

Land values are going higher and higher. A man in Pemiscot County netted \$100 an acre on 63 acres from alfalfa. He told a real estate man he could sell the land for \$150 an acre. An Illinois man came along, the agent priced the land at \$160 and the man said he would take it. Then the owner backed down. It is likely only a few years when this great alluvial plain of southeast Missouri will be selling at \$100 to \$200 an acre.

This country is being cleared rapidly. Two miles east of Campbell is a long, narrow stretch called West Swamp. Water used to stand in it most of the year. A dredge ditch was cut down through it. The last days of January I passed over there and a man was plowing, and in mid-winter. Mr. Carter had 2½ acres of turnips there last year which yielded 500 bushels. He sold at 50 cents a bushel, which would be \$100 per acre.

The last few years has witnessed wonderful changes in our county. Not only has much land been cleared, land drained, nice houses and barns built, but methods of farming have wonderfully improved. It used to be that hardly a farmer would pay \$1.50 for seed corn. Now they will readily pay \$2.50 per bushel. Only a short time ago very few sowed any rye for pasture. Now there is a lot sown, and likely the amount will double in two years. Some have sowed rye in the corn among the crab grass and never plowed it in, and, while it is a new way, I believe it will be a success. Then some pick over cotton so that there is no open bolls, sow rye and run a five-tooth cultivator between the rows. People rotate their crops more, grow more leguminous crops, thus getting more nitrogen into their soil. They grow more live stock than a few years ago, and the quality has increased wonderfully.

About seven years ago we organized a Farmers' Institute, and although it was a slow go at first it is now popular and flourishing. Later on we got the boys' corn contest started, and for several years we have had a corn show at Campbell and a big parade. In that parade we have all kinds of floats. The W. C. T. U. have one or more. The farmers have a spraying outfit in operation. Some have a load of corn, others have different products, arranged in all kinds of ways.

There are big loads of cotton, one last year weighed 6,445 pounds.

Some pull a hay tedder and some other kinds of machinery. Some floats are comical. There was a flying machine at the Campbell Fair, so the boys made one for the corn show; they had some old wagon wheels for it to rest on; the seven cylinders were made of old discarded tomato cans. They pushed this along in the parade with the bird man up in the box, offering any young lady \$10 to go up with him. Then there was the

old spinning wheel and relics of the long ago. The public schools of the vicinity were in the front with their banners. A nice silk flag is awarded to the rural school having in the parade the largest per cent of its enumeration. The parade, when strung out, will reach across the city, and people came for 100 miles to see it, and traveling men try to "make" Campbell on that date. It is an imposing and inspiring sight.

The 28 counties of Southeast Missouri are now joining in a great confederation to boost this section. The commercial clubs, farmers' union, good roads club, school teachers, women's club and about all and any kind of a club have confederated to work up progressive measures for the great Southeast. The confederation was organized a year ago at Poplar Bluff. Then on August 16 we met at Dexter and located a place to hold a Southeast Missouri products show. Dexter was named and the show and a big parade was held October 30-31. Then and there we decided to meet in Kennett January 19. A special train started from the Cape and picked up 300 delegates on its way; then a lot of Dunklin countians came to Kennett to swell the crowd. The St. Louis papers had editors and reporters there. It was a very enthusiastic meeting, all boosting for Southeast Missouri. It was the biggest booster meeting I ever saw. At night Kennett gave the booster crowd a banquet at which over 300 sat down to a nice feast. Then, at midnight, we all departed for home.

R. C. YOUNG.

LANGUAGE.

Editor RURAL WORLD: "Some words on language may well be applied, so take them kindly, tho' they gall your pride." A talk on language in a farm paper may be novel, but there is no good reason why we should not use as good English as our city cousins. In fact, I am not sure that we do not; at least we cannot keep up with them in the use of slang. Now, a little vigorous slang is not so bad; but enough is enough.

With friend Lyon, I studied old "Pinneo" and then "Harvey," and am not sure that the grammars of today are better. Neither the books nor the teaching of today is intense enough. I hear public speakers make errors that they would not make if they had been taught to diagram, analyze and parse. It is doubtful that there is one pupil in a hundred in the eighth grade in our state that can parse the words in the simplest sentence.

Some may say that analysis and parsing do not improve our language; that giving the gender, person, number and case of nouns and pronouns, and the voice, mode, tense, person and number of verbs is a waste of time.

Let us see. If a boy is made to understand that "the object of a transitive verb or a preposition is in the objective case," and then taught the objective form of nouns and pronouns, he will never say "he expects you and I, etc.," or "these things come to you and I," as we often hear even in the pulpit. And if he is made to repeat till he understands that "a verb must agree with its subject in person and number," he will not say "my feet's cold." Now, we have no hope of improving the English of adults, for their habit of speech is too firmly fixed, but maybe some of the younger readers or even teachers may be aroused to the necessity for better language. The time to teach good English is when the child begins to use it, but not all parents can do this.

We know a little girl in the fourth grade who always says "my hands are cold," "I have eaten," "I have ridden," "that colt has been ridden," etc. She cannot yet tell why, but will learn the reason later.

If the editor thinks it worth the space, in our next we shall take up some of the common errors in speech.

AGRICOLA.

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